

**MISSOURI DEPARTMENT  
OF  
CONSERVATION**

**STRATEGIC PLAN**

July 1, 2002



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DOCUMENTS DIVISION

Missouri Department of Conservation  
P.O. Box 180  
Jefferson City, MO 65102



## Message from the Director

Every successful organization requires some amount of “strategic” planning. As the adage implies, if we don’t know where we’re going, any road will do. So it’s important to establish direction and milestones to keep us from wandering aimlessly across the conservation landscape. Moreover, it’s vital that everyone know what’s important to the agency. To set a course and not communicate it widely is to travel alone.

Our constitutional mandate and Department mission and vision statements establish direction, but the issues and results stated in this plan give us greater focus, while performance measures give us the means for determining progress. All of these taken together will enhance our ability to manage the fish, forest, and wildlife resources and our need to be accountable to all the citizens of the state.

Unlike previous efforts, this plan will be subject to regular revisions. New issues may be added at anytime while existing items will be reported on annually and modified as new information is available or conditions change. In addition, much of the detail usually found in strategic plans has been purposefully omitted. Instead, we will focus on results and each Department unit and region will be expected to “operationalize” this plan through the various Department planning and budgeting processes available to them.

We are committed to this process as a part of how we do business. It has served the Department well over the past 25 years. We also value the comments and suggestions of the public and all Department employees, and we hope you’ll continue to support and contribute to this important effort.

*John D. Hoskins, Director*





## MISSOURI CONSTITUTIONAL LANGUAGE

### CONSERVATION

**Section 40(a). Conservation commission, members, qualifications, terms, how appointed—duties of commission—expenses of members.**—The control, management, restoration, conservation and regulation of the bird, fish, game, forestry and all wildlife resources of the state, including hatcheries, sanctuaries, refuges, reservations and all other property owned, acquired or used for such purposes and the acquisition and establishment thereof, and the administration of all laws pertaining thereto, shall be vested in a conservation commission consisting of four members appointed by the governor, by and with the advice of and consent of the senate, not more than two of whom shall be of the same political party. The members shall have knowledge of and interest in wildlife conservation. The members shall hold office for terms of six years beginning on the first day of July of consecutive odd years. Two of the terms shall be concurrent; one shall begin two years before and one two years after the concurrent terms. If the governor fails to fill a vacancy within thirty days, the remaining members shall fill the vacancy for the unexpired term. The members shall receive no salary or other compensation for their services as members, but shall receive their necessary traveling and other expenses incurred while actually engaged in the discharge of their official duties.

Source: Const. of 1875, Art. XIV, Sec. 16 (as adopted November 3, 1936). (Amended August 8, 1972)

**Section 40(b). Incumbent members.**—The members of the present conservation commission shall serve out the terms for which they were appointed, with all their powers and duties.

**Section 41. Acquisition of property—eminent domain.**—The commission may acquire by purchase, gift, eminent domain, or otherwise, all property necessary, useful or convenient for its purposes, and shall exercise the right of eminent domain as provided by law for the highway commission.

Source: Const. of 1875, Art. XIV, Sec. 16.

**Section 42. Director of conservation and personnel of commission.**—The commission shall appoint a director of conservation who, with its approval, shall appoint the assistants and other employees deemed necessary by the commission. The commission shall fix the qualifications and salaries of the director and all appointees and employees, and none of its members shall be an appointee or employee.

Source: Const. of 1875, Art. XIV, Sec. 16.

**Section 43(a). Sales tax, use for conservation purposes.**—For the purpose of providing additional moneys to be expended and used by the conservation commission, department of conservation, for the control, management, restoration, conservation and regulation of the bird, fish, game, forestry and wildlife resources of the state, including the purchase or other acquisition of property for said purposes, and for the administration of the laws pertaining thereto, an additional sales tax of one-eighth of one percent is hereby levied and imposed upon all sellers for the privilege of selling tangible personal property or rendering taxable services at retail in this state upon the sales and services which now are or hereafter are listed and set forth in, and, except as to the amount of tax, subject to the provisions of and to be collected as provided in the "Sales Tax Law" and subject to the rules and regulations promulgated in connection therewith; and an additional use tax of one-eighth of one percent is levied and imposed for the privilege of storing,

using or consuming within this state any article of tangible personal property as set forth and provided in the "Compensating Use Tax Law" and, except as to the amount of the tax, subject to the provisions of and to be collected as provided in the "Compensating Use Tax Law" and subject to the rules and regulations promulgated in connection therewith.

(Adopted November 2, 1976)

**Section 43(b). Use of revenue and funds of conservation commission.**—The moneys arising from the additional sales and use taxes provided for in section 43(a) hereof and all fees, moneys or funds arising from the operation and transactions of the conservation commission, department of conservation, and from the application and the administration of the laws and regulations pertaining to the bird, fish, game, forestry and wildlife resources of the state and from the sale of property used for said purposes, shall be expended and used by the conservation commission, department of conservation, for the control, management, restoration, conservation and regulation of bird, fish, game, forestry and wildlife resources of the state, including the purchase or other acquisition of property for said purposes, and for the administration of the laws pertaining thereto, and for no other purpose. The moneys and funds of the conservation commission arising from the additional sales and use taxes provided for in S 43(a) hereof shall also be used by the conservation commission, department of conservation, to make payments to counties for the unimproved value of land for distribution to the appropriate political subdivisions as payment in lieu of real property taxes for privately owned land acquired by the commission after July 1, 1977, and for land classified as forest cropland in the forest cropland program administered by the department of conservation in such amounts as may be determined by the conservation commission, but in no event shall amount determined be less than the property tax being paid at the time of purchase of acquired lands.

Source: Const. of 1875, Art. XIV, Sec. 16. (Amended November 2, 1976) (Amended November 4, 1980)

**Section 43(c). Effective date—self-enforceability.**—The effective date of this amendment shall be July 1, 1977. All laws inconsistent with this amendment shall no longer remain in full force and effect after July 1, 1977. All of the provisions of sections 43(a)-(c) shall be self-enforcing except that the general assembly shall adjust brackets for the collection of the sales and use taxes.

(Adopted November 2, 1976)

**Section 44. Self-enforceability—enabling clause—repealing clause.**—Sections 40-43, inclusive, of this article shall be self-enforcing, and laws not inconsistent therewith may be enacted in aid thereof. All existing laws inconsistent with this article shall no longer remain in force or effect.

Source: Const. of 1875, Art. XIV, Sec. 16

**Section 45. Rules and regulations—filing—review.**—The rules and regulations of the commission not relating to its organization and internal management shall become effective not less than ten days after being filed with the secretary of state as provided in section 16 of this article, and such final rules and regulations affecting private rights as are judicial or quasi-judicial in nature shall be subject to the judicial review provided in section 22 of article V.

**Section 46. Distribution of rules and regulations.**—The commission shall supply to all persons on request, printed copies of its rules and regulations not relating to organization or internal management.



## OUR MISSION

To protect and manage the fish, forest, and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy, and learn about fish, forest, and wildlife resources.

## OUR VISION

To have healthy, sustainable plant and animal communities throughout the state of Missouri for future generations to use and enjoy, and that fish, forest, and wildlife resources are in appreciable better condition tomorrow that they are today.

That all Missourians understand the relationship and value of plant and animal communities to our social and economic well being.

That citizens and government agencies work together to protect, sustain, enhance, restore, or create sustainable plant and animal communities of local, state, and national significance.

## WHAT WE BELIEVE

**All citizens are important and we value their trust, regardless of their point of view:** All Missouri citizens deserve respect. Our job is to listen, understand, and personally deliver programs and services in a manner that promotes relationships based on trust.

**Excellent public service is what we will provide:** We are committed to providing excellent public service in a manner that benefits fish, forest, and wildlife resources and encourages citizens to be active participants and conservationists.

**Fairness, objectivity, sound science, integrity, responsibility is what we expect of ourselves:** Our decisions and behavior will be based on fairness, objectivity, and the best scientific information; we will act with the highest degree of integrity and ethical consideration.

**Employees are the Department's most important resource:** All employees deserve a safe, high quality work environment that promotes opportunities for professional and personal growth, teamwork, and individual respect.



## **INTRODUCTION**

### **History of Strategic Planning in the Department of Conservation**

The Conservation Commission is vested by the state constitution with responsibility for "The control, management, restoration, conservation and regulation of the bird, fish, game, forestry and all wildlife resources of the state...". Under the watchful eye of Missouri citizens, this mandate has guided the Department and remains a model for all state conservation agencies. Indeed, over the past 63 years we have witnessed many fish, forest, and wildlife management success stories, most of which can be attributed, at least in some way, to the forethought and courage of those who believed in the idea of a stable, non-political Conservation Commission. In 1976, the citizen-approved 1/8 of one percent sales tax earmarked for the Department began a new era of conservation in Missouri. Stable funding would now make long range planning a possibility and Department accountability to all citizens of the state would become increasingly important.

In 1977 the Department's "Design for conservation" provided strategic direction for the agency and its programs. "Design" was created in response to changing social values, demands, and other pressures on the fish, forest, and wildlife resources of the state, and for 10 years the goals of "Design" guided the agency through an exciting period of growth. In 1989, the first of two five-year strategic plans was developed. The FY 1990-1994 plan focused on the need to develop a planned management system for determining Department priorities. The "strategic Plan" and subsequent operational plans guided the agency through a time of increased emphasis on public lands and resources, and stressed the development of additional programs, especially in the area of conservation education. The FY 1996-2000 plan highlighted social changes, citizen involvement, partnerships, aquatic resources, technology, and private land issues. A change in agency leadership in 1997, as well as many organizational changes, effectively rendered the FY 1996-2000 plan obsolete by the end of that year.

In 1995, Governor Mel Carnahan signed the Commission on Management and Productivity (COMAP) Implementation Order 94-04. This Order mandated the adoption of an integrated strategic planning process by all state agencies and creation of an Interagency Planning Council (IPC). The Department has been an active participant on the Council and an original member of the COMAP. During this time, the Department's FY 1996-2000 strategic plan was the only "working" strategic plan in state government and was a model for the IPC as it developed a state strategic planning model and guidelines.



## **The New Process and Plan**

Influenced by changing philosophies and trends in strategic planning for government agencies, the current planning process takes a slightly different approach than previous efforts. The emphasis is on key issues, results, and performance measures rather than by objectives or activities. It is also a dynamic process rather than a once every five-year event. Issues were identified by staff from all levels within the Department. In addition, all Regional Management Guidelines (RMGs) were reviewed in an effort to discover issues not previously included. All issues were compiled by the Policy Coordination Section and reviewed by the conservation Commission, Director, Deputy Director, Division Administrators, and Section Chiefs.

This Plan will be reviewed annually and progress reported to the Commission and all Department staff. Administration will be responsible for the strategic plan; however, new issues may be offered by anyone at anytime. The result will be a more useful and up-to-date Department strategic plan that also meets the needs of the state Office of Administration, Budget and Planning.

## **OVERVIEW**

This strategic plan is a guiding document for the Department of Conservation. Its purpose is to highlight important agency issues and to assign priority to achieving specified results. It is not designed to encompass everything the agency does or wants to do, those items are captured through various other documents, guidelines, and individual workplans. Rather, this plan is a way to communicate with ourselves and the public about some of the most urgent, or important issues facing the agency.

We view this plan and process as an integral part of how the Department does business. Results and performance measures will be monitored and reported. Issues, results, and measures will be added, deleted, or modified as necessary. Moreover, division and regional workplans and budgets should have obvious linkages to strategic issues where appropriate. The planning process and document have also been designed to meet the requirement of the state Integrated Strategic Planning Process and IPC's Model and Guidelines.

Accountability is key to achieving the strategic plan results. Summary reports will be prepared periodically to track progress. Annual planning and budgeting processes will be essential to identifying and carrying out the necessary actions required to achieve success. All Department units will be responsible for integrating strategic issues and results into their activities. Initially, performance measures have been identified for all

## **KEY ASSUMPTIONS**

results. In some cases these number are surrogate measures and will be used until better measures can be developed or identified. Baseline numbers, where available, will be used for comparative purposes in future years. Data sources have been identified for all measures and specific units and individuals will be assigned responsibility for gathering and recording data.

In developing this strategic plan, a number of assumptions have been made about the resources, people, and work of the Department. While the world in which we live is constantly changing, the following key assumptions are critical to achieving the Department's mission and fulfilling its mandate. Key assumptions include:

- Missourians value fish, forests, wildlife, habitats, and natural communities, and believe in and support the fundamental premise of conservation.
- Missouri's human population will continue to grow and spread across the land increasing the struggle to protect and restore natural resources.
- There is a need for more and better information and knowledge about fish, forests, wildlife, and the people who use and enjoy these resources.
- Serious strides in conservation of natural resources must involve partnerships, cooperation, and collaboration of public and private interests.
- Private property rights are sacrosanct to Missourians and must be held in high regard by the Department.
- The Department's budget will remain stable for the foreseeable future.





## **MISSOURI CONSERVATION COMMISSION STRATEGIC GOALS**

The following eight strategic goals were developed and adopted by the Conservation Commission on April 19, 2000 and are intended to provide general guidance and direction for the Department and staff.

### **Goal #1**

Preserve and Restore the State's Biodiversity

### **Goal #2**

Inform and Educate the Public about Conservation

### **Goal #3**

Help Landowners Manage Their Land for Sustainable Resources

### **Goal #4**

Public Land that Invites Public Use

### **Goal #5**

Integration of Conservation Principles and Urban Lifestyles

### **Goal #6**

Effective Conservation Partnerships

### **Goal #7**

Retain Public Support and Recruit New Participants

### **Goal #8**

Improve Business Management Systems





## Goal 1: Preserve and Restore the State's Biodiversity

### Strategic Issue #1: Endangered Species

Missouri's landscape has been one of dramatic and constant change over the past 100 years. The environment has changed rapidly because of increasing demands by a growing human population for water, land, and energy to support agriculture, industry, transportation, and other interests. These changes are stressing many of our natural communities and the native plant and animal species they sustain. As a result, a substantial number of plant and animal species in Missouri have experienced severe population declines and some have been extirpated.

#### **Desired Results**

- ❖ No additional species extirpations.
- ❖ Improve the status of federally and state listed species and species of conservation concern.
- ❖ Improve the quality and quantity of habitat for endangered species on public and private property.
- ❖ Cooperate with other agencies and organizations to improve endangered species habitat.

*Target Geography:* Statewide

*Progress:* In the past year, two species were removed from U.S. Fish and Wildlife Service's (FWS) Candidate List, the sicklefin and sturgeon chubs. Recent surveys, mostly conducted by MDC, provided evidence that the populations may be more common than previously believed. However, two new species were added to the federal Candidate List, the Ozark hellbender and Neosho mucket. Current data indicate that both species have declined in the last several years. Although no species were extirpated, the population of Tumbling Creek Cavesnail, found exclusively in one privately owned cave in Missouri, drastically declined. The cause for the decline is uncertain. This drop prompted the FWS to consider emergency listing, which is currently pending. The status of several species in the MDC Species of Conservation Concern was upgraded. Recent surveys indicate that two plant and three dragonfly species are more abundant than previously known; however, two other plants species and one other dragonfly species, whose status was previously unknown, were verified to be rare. Six plant species were added to the Species of Conservation Concern Checklist when they were discovered as new state records for Missouri.

During the past year, a five-year Threatened and Endangered Species Recovery Action Plan was drafted and each federally listed species was assigned an MDC staff member to act as the Recovery Leader. Designated Recovery Leaders will be responsible for ensuring that recovery plans are implemented, thus improving our ability to reduce threats and improve the status of many of our endangered species. Several projects were implemented that provided technical and financial support to both public and private land managers. These include erosion control along streams and rivers containing Topeka shiners, Niangua darters, and scaleshell mussel. In addition, three Section 6 research projects were concluded, two involving Topeka shiners and one involving a survey of rare mussels. Two Section 6 projects were initiated; one involving a survey for endangered mussels of the Lower Osage River, and one to determine mussel captive propagation techniques for augmentation. Numerous monitoring and survey efforts were initiated or continued.

More information on specific projects can be found in the annual Biodiversity Report.

**Performance Measures**

- ✓ Number of species added, removed, or reclassified on the federal threatened, endangered, or candidate lists, the state endangered species list, and the state species of conservation concern checklist.
- ✓ Number of contacts with private land owners or managers concerning listed species technical guidance.
- ✓ Acres of public land managed for endangered species.
- ✓ Development of cooperative agreements with other agencies or organizations.

***Performance Report:***

- Performance Measures for listing status of rare species - See above Progress narrative.
- Measures have been modified and will be reported next year.

**REVIEW TEAM:** Lead: Peggy Horner; Participants: Rochelle Renken, Marlyn Miller, Dorothy Butler, Jim H. Wilson, Mike Hoffman, Steve Young





Goal 1: Preserve and Restore the State's Biodiversity  
Strategic Issue #2: Deterioration of the Aquatic Environment

The quality of Missouri's aquatic resources continues to be adversely affected by land use practices and water resource projects. This trend will continue with increased population growth, industrialization, urbanization, and chemical dependent agricultural practices. Since the water resource is essential for all life and provides a tremendous amount of recreation for people who enjoy swimming, fishing, boating and sightseeing, it is incumbent on the Department to protect and enhance the integrity of this resource. Failure to address this issue will result in an erosion of the public trust in addition to the loss of critical resources and aquatic species. The development of in-stream flow standards and policies, and a comprehensive state water law are key to a successful program dedicated to reducing aquatic resource deterioration. Working together with the Missouri Department of Natural Resources on the development and enforcement of rules and regulations affecting confined animal feeding operations, in-stream gravel mining, urban development, chip mills, and other threats to the quality of aquatic resources is crucial.

**Desired Results**

- ❖ Improved water quality in Missouri's public waters.
- ❖ Enactment of state water law that protects instream flows.
- ❖ Reduced stream erosion, sedimentation and other forms of habitat degradation.
- ❖ Reduction in the number of public lakes and streams with health advisories on the consumption of fish.
- ❖ Increased understanding among Missourians about the causes of aquatic resource degradation.

*Target Geography:* Statewide

*Progress:*

- An aquatic resource assessment and monitoring program was initiated.
- Several watershed assessment and inventory reports were completed and posted on the Department's internet web site.
- See Fisheries Division's portion of the FY01 Department annual report for information on other activities.

**Performance Measures**

- ✓ Miles of stream designated as state high quality waters.
- ✓ Miles of impaired streams.
- ✓ Acres of impaired public lakes.
- ✓ Number of stream habitat improvement projects installed.
- ✓ Number of pollution incidents and fish kills on public waters.
- ✓ Number of waters with health advisories on the consumption of fish.
- ✓ Percentage of Missourians understanding the causes of aquatic resource degradation.

*Performance Report:*

Baseline information for the first three Performance Measures can be obtained from the Missouri Department of Natural Resources by Fisheries Division's Environmental Services Unit.

Annual totals for the fourth and fifth Performance Measures can be obtained from the F-50-D annual performance report.

The status of the sixth Performance Measure can be determined by the Environmental Services Unit from the fish consumption advisory issued annually by the Missouri Department of Health.

The status of the last Performance Measure can be determined periodically by adding a question or two to the *Conservation Monitor*.

**REVIEW TEAM:** Lead: Marlyn Miller; Participant: Ginny Wallace



## Goal 1: Preserve and Restore the State's Biodiversity

### Strategic Issue #3: Completing Missouri's Natural Areas System

The goal of Missouri's Natural Areas Program is to protect and manage representative examples of terrestrial and aquatic natural communities and geologic features found in each of the state's natural sections. Currently, 171 Natural Areas have been designated, but the system is far from complete. Emphasis needs to be directed toward both public and private land additions to existing Natural Areas as well as to identification and designation of other quality areas to conserve the full array of Missouri's natural communities and native landscapes. Also, existing Natural Areas need increased levels of management to enhance their natural quality, control invasive exotic species, and provide for compatible public use.

#### **Desired Results**

- ❖ Comprehensive representation of Missouri's natural communities and landscapes in the Natural Areas System.
- ❖ Management of Natural Areas on an ecosystem level where feasible.
- ❖ Increased private landowner participation in the Natural Areas program.
- ❖ Increased Natural Area acquisitions.
- ❖ Public appreciation and understanding of the values of natural areas.

*Target Geography:* Statewide

*Progress:* Six Natural Areas, totaling 1,652 acres, were designated in FY01. One of these, the 47-acre Morris Prairie, is a privately owned dry-mesic prairie. Four Department natural areas, Little Tarkio Prairie, Indian Trail, Danville Addition and Mossy Spring Cave (totaling 1,198 acres), represent significant dry-mesic prairie, dolomite and limestone glade, chert woodland, dry-mesic bottomland forest, and cave natural communities. The Indian Trail Natural Area, now in two separate units, is part of a 2,500-acre natural community focus area, which will be considered for natural area expansion in the future. This is the only area currently designated with the potential for landscape representation. One newly designated Mark Twain National Forest natural area, Solomon Hollow (407 acres), represents sandstone glade and sandstone woodland natural communities. Two Natural Area newsletters were distributed.

#### **Performance Measures**

- ✓ Number of new Natural Areas acquired.
- ✓ Number and acres of new Natural Areas designated.
- ✓ Number and acres of private in-holdings or other critical additions acquired or secured.
- ✓ Number and acres of Natural Areas designated at the landscape level.
- ✓ Number acres of Natural Areas undergoing restoration.
- ✓ Number and acres of Natural Area buffer zones undergoing reconstruction.

#### *Performance Report: (for FY2001)*

- Natural Areas Acquired: Twenty-five Mile Prairie, Polk County - 334 acres
- Natural Areas Designated - Total: 6 areas, 1652 acres:
  - Little Tarkio Prairie, Holt County, MDC - 15 acres
  - Mossy Spring Cave, Franklin County, MDC - 170 acres
  - Indian Trail, Dent County, MDC - 700 acres
  - Solomon Hollow Glades, Phelps County, USFS - 407 acres



- Danville Glade Addition, Callaway County, MDC - 313 acres
  - Morris Prairie, Sullivan County, private - 47 acres
- Additions to Natural Areas: Addition to Tarkio Prairie Natural Area, Atchison County - 80 acres.
- Indian Trail Natural Area, now in two separate units, is part of a 2,500-acre landscape natural community focus area.
- Areas Undergoing Restoration: [prescribed fire management or exotic species control]:
  - Prescribed fire: 39 natural areas
  - Exotic species control: 32 natural areas.
- Buffer Zones Under Restoration: Exact acreage unknown; six Natural Areas: three in the Ozark Unit and three in the Missouri Unit.

**REVIEW TEAM:** Lead: Karen Kramer; Participants: Wayne Porath, Marlyn Miller, Lisa Allen/Lynn Barnickol





## Goal 1: Preserve and Restore the State's Biodiversity Strategic Issue #4: Tall Grass Prairie Conservation

Tallgrass prairies are diverse grasslands with an abundance of wildflowers and few woody plants. More than 800 plant species occur on Missouri's prairies. The structure and composition of this natural community provides habitat to hundreds of animals. Some have adapted to changes in the landscape, others are gone, and still others are declining and will soon be lost from the Missouri landscape without a concerted conservation effort.

Missouri's tallgrass prairie heritage is significant. At least 15 million acres, covering more than a third of the state, were tallgrass prairie at the time of European settlement. Prairies occurred in every part of Missouri, including the Ozarks and the Bootheel. Today, fewer than 90,000 acres of the state's original prairie remains and is mostly restricted to the Osage Plains Natural Division. More than 22,000 acres of this prairie is open to the public. Missouri's public prairies are owned and managed by the Department, Missouri Department of Natural Resources, The Nature Conservancy (TNC), the Missouri Prairie Foundation (MPF), the University of Missouri and the Ozark Regional Land Trust. About 68,000 acres remain in private ownership. Many private landowners value their prairies and maintain them as forage for livestock.

Protecting tallgrass prairie flora and fauna will require active management of existing remnants and an aggressive campaign to reconstruct prairies, better manage grasslands, and promote the planting of native prairie species.

### **Desired Results**

- ❖ Manage of existing tallgrass prairie remnants through selective cutting of woody species, periodic haying, grazing and prescribed burning.
- ❖ Establish additional acres of prairie through reconstruction with native seed sources.
- ❖ Acquire additional acres by the Department or other conservation partners.
- ❖ Increase public awareness of tallgrass prairie and increase visitation to public prairies.
- ❖ Improve management of prairie remnants on private land through targeted technical assistance from the Department and the Natural Resources Conservation Service.
- ❖ Secure reproducing populations of prairie dependent species.

*Target Geography:* Tallgrass prairie conservation is appropriate statewide, with particular emphasis in the following regions: Northwest, Northeast, Kansas City, Central, West Central, and Southwest.

*Progress:* During 2001, the Department and grassland conservation partners made significant progress on tallgrass prairie conservation. About 22,000 acres of prairie were being managed by the Department or our partners as conservation grasslands. Of this total, the Department managed over 14,000 acres of remnant tallgrass prairie. Also during 2001, the Department and prairie conservation partners acquired 1,751 additional acres for prairie conservation, though not all of these acres are high quality prairie.

### **Performance Measures**

- ✓ Acres of remnant tallgrass prairie on Department areas.
- ✓ Acres of reconstructed prairie on Department areas and other public lands.
- ✓ Number of workshops provided using "Guidelines for Reconstruction, Restoration and Management of Prairie and Savanna Natural Communities of the Glaciated Plains of Missouri".



- ✓ Acres of private land prairie managed and protected through conservation easement or other tools for long-term protection.
- ✓ Number of visitors to public prairies.

*Performance Report:*

- Acres acquired:
  - MDC: Twenty-five Mile Prairie (Polk County), 334 acres
  - Tarkio Prairie (Atchison County, 80 acres (addition)
  - MPF: Denison/Lattner Prairie (Barton County, 200 acres (addition)
  - Bruns Tract (Pettis County), 159 acres
  - TNC: Cook Meadow (Barton County) 22 acres (addition)
  - Perkins tract (Harrison County), 246 acres (addition to Dunn Ranch)
  - Westlake Tract (Harrison County), 710 acres (addition to Dunn Ranch)
- The Department is restoring former grasslands to native prairie plants. During 2001 the Department planted 1,489 acres of soil to reestablish prairie. Tracts as small as 5 acres and as large as 280 acres were planted. Other partners, like The Nature Conservancy, have also started converting former cropland to restored prairie vegetation.
- Workshops provided using "Guidelines for Reconstruction, Restoration and Management of Prairie and Savanna Natural Communities of the Glaciated Plains of Missouri" — Currently, one grassland review and one savanna review will be held annually to provide the forum for managers to exchange knowledge about management and research on these communities.
- Acres of private land prairie managed and protected through conservation easement or other tools for long-term protection (1,275 landowner visits; 71,360 acres planned or applied).
- Number of visitors to public prairies:
  - Lek Trek — In an effort to build support for grassland conservation statewide, the MPF generated and provided the financial support for the Lek Trek, one of the biggest "conservation events" in Missouri history. The Department was a significant partner in the delivery of the Lek Trek. Its purpose was to raise awareness of grasslands, introduce the Grasslands Coalition, and raise funds for work in the focus areas selected by the Coalition. The Trek began July 22, 2000, at the Iowa state line, and concluded on October 14, 2000, at Prairie State Park. Over the 565-mile route, the Lek Trek offered sixteen special events and thirteen Learner Days to give citizens the opportunity to learn more about prairies, our cultural and historical connections to prairies, and current issues affecting grasslands. An estimated 7,500 people participated in the Trek by walking or attending an event or Learner Day. An estimated 1.5 million learned about the Coalition or grassland issues through articles and interviews via extensive media coverage.
  - Tallgrass Prairie film — "Missouri's Tallgrass Prairie: An American Original" is a visually rich film shows not only some of the history of our prairie, but also the plants and animals of today that depend on the relatively few remaining prairie acres. It will be distributed to public libraries throughout the state, going to schools this fall, and sold through our gift shops and website.
  - New free booklet for landowners on enhancing grassland habitat — "Rich Grasslands for Missouri Landowners" is a booklet written to give landowners help in creating a mix of forb and warm season grass habitat, as well as to enhance whatever grasslands they currently have. It includes information and color photos on some native grassland plants.
  - Prairie Critter Cards — Six prairie species were highlighted in the cards for kids ages 8 - 12. They were distributed at fairs, Lek Trek events and classes.
  - Developing Prairie curriculum for grades 3 and 4. This will be completed and provided to teachers throughout Missouri within a year or so.
  - Taught classes on prairie curriculum to honors students and teachers, held prairie image exhibit at Springfield nature center, and helped develop prairie habitat for various outdoor classrooms.

**REVIEW TEAM:** Lead: Dennis Figg; Participants: Russ Titus, Lorna Domke



Goal 1: Preserve and Restore the State's Biodiversity  
Strategic Issue #5: Conserving Karst Environments

Several Regional Management Guidelines identify karst communities as unique environments rich in biodiversity and in need of specific management attention. Of particular note is the number of very distinct conservation topics related directly to the proper management of karst environments. These include water quality maintenance (especially groundwater quality), management of endangered species, and coldwater fisheries. Springs play a major role in maintaining base flows of Ozark streams. These springs largely provide the water regimes and temperatures that maintain the fauna of these streams and support cool water fisheries. In view of the number of issues affected by the proper management of karst communities, incentives for management of karst features on private lands are needed.

**Desired Results**

- ❖ Improved management of Missouri's karst communities, especially on private lands.

*Target Geography:* Ozark, Southwest, East Central, West Central and Southeast regions

*Progress:* Constructed the gates on caves with endangered bats. Provided two cave ecology workshops to Department and other agency staff to increase awareness of karst issues. Published cave restoration article in the *Missouri Conservationist*. Sponsored cave cleanup and restoration efforts with local cave groups. Sponsored cave gate workshop for biologists in the Midwest.

**Performance Measures**

- ✓ Number of caves inventoried and classified annually.
- ✓ Number of karst Heritage sites visited.
- ✓ Number of landowners contacts involving watersheds, caves and karst.

*Performance Report:* Heritage sites visited - 59; Contacted 12 landowners

**REVIEW TEAM:** Lead: David Urich/Bill Elliot; Participants: Marlyn Miller, Lorna Domke







## Goal 1: Preserving and Restoring the State's Biodiversity Strategic Issue #6: Missouri and Mississippi River Enhancement Opportunities

In response to major floods in 1993 and 1995, the Department partnered with several federal agencies and private entities to acquire significant acreage along the Missouri and Mississippi rivers. Several thousand acres were purchased during the 1990s as part of a cooperative effort by MDC, USFWS, USDA and USACOE. MDC began its Riverlands Initiative, is developing newly acquired lands, assists in managing some new federal lands, and will likely be similarly involved with additional federal acquisitions of over 100,000 acres — authorized, and in some cases funded, as the Wetland Reserve Program and the Corps' Fish & Wildlife Mitigation Project continue. Similarly, the USACOE's Environmental Management Program has funded significant enhancements to Upper Mississippi River Habitats and MDC areas. Many of these acres are open to periodic flooding, providing flood storage and aquatic habitat.

Beyond acquisition and area management, major policy issues affect the future of species and habitats on each great river. Missouri River fish and wildlife will be deeply affected by changes to the Corps' Missouri River Master Manual. Lower summer flows offer opportunity to achieve significant biological gains as well as increased river related recreation. Opportunities to work with USACOE on best mitigation approaches continue. Related needs identified in Regional Management Guidelines include passive and active reforestation, wetland enhancements, and the re-establishment of sand islands, chutes and backwater habitats.

Public use, understanding and involvement are important to protecting big river habitats. Recreation plays an increasingly important role in the national debate over Missouri River use and water allocation. Both big rivers benefit when discussion involves broader interests: barge and agriculture values should be supplemented by those of recreation, tourism and natural resource conservation. The need for such enhancements is heightened by resurging public interest in Missouri River recreation and the historic Lewis and Clark expedition.

### **Desired Results**

- ❖ Enhanced fish and wildlife habitat on the waters and floodplains of the Missouri and Mississippi rivers
- ❖ Changes to the Missouri River Master Manual will favor periods of low summer flows.
- ❖ Updated and improved Missouri River recreation studies.
- ❖ Fewer species on protected status and exotic fish species are controlled.
- ❖ Recreational use of the Missouri and Mississippi rivers by anglers and others increases, as does statewide appreciation and understanding of the two big rivers.
- ❖ Preparation for the Lewis and Clark bicentennial creates understanding and a good impression of MDC management along the route, and leads to a sustained increase in recreational use and ecological understanding in subsequent years.
- ❖ Control of exotic plants and animals will enhance natural habitats.
- ❖ Recreational use facilities and public participation on the rivers will increase.

*Target Geography:* Statewide, with emphasis on counties and MDC regions adjoining the Missouri and Mississippi rivers.

*Progress:* MDC has made major acquisitions since 1993, with a total ownership of 80,681 acres in the Missouri and Mississippi floodplains. In addition, we manage several thousand acres of land leased from USACOE. Many of these have been reconnected to the floodway, regularly taking high water in flood events. We have worked with the USACOE to structurally improve habitat in the river. Areas adjacent to the Missouri are either operating under an area-specific plan, or are being considered as part of the Riverlands planning process.

Public use is increasing on river areas, and facilities have been or are being developed to give more exposure to hunting, fishing, bird watching and other forms of outdoor recreation. Big river fishing accesses have increased from 49 to 64 in the last decade. Eagle Day events have drawn thousands to the river, both helping support efforts to de-list bald eagles and developing some nature-based economic value for communities involved.

MDC is the lead state agency on biological needs of big river species and works for basin-wide pragmatic solutions to real habitat problems. The Department plays a key role in recovery planning for endangered species, and has pioneered hatchery techniques for rearing paddlefish, pallid sturgeon and other big river fish whose habitats have been critically disrupted.

#### **Performance Measures**

- ✓ Missouri and Mississippi river floodplain habitat enhancement projects.
- ✓ Number of floodplain acres connected and available to flooding.
- ✓ Number of partnership projects with the USACOE on Missouri and Mississippi river floodplain lands.
- ✓ Incidence of low Missouri River flows during July - September (years/decade).
- ✓ Number of islands in Missouri River with annually flowing side chutes.
- ✓ Number of rare and endangered species in big-river floodplains.
- ✓ Number of recreational anglers who use the Missouri and Mississippi rivers.
- ✓ Number of Missouri and Mississippi river fishing accesses.

#### *Performance Report:*

**REVIEW TEAM:** Lead: Gary Christoff; Participants: Norb Giessman, Marlyn Miller, Shannon Cave





## Goal 1: Preserve and Restore the State's Biodiversity

### Strategic Issue #7: Wetland Diversity

Over 90% of Missouri's wetland resource has been lost. Those lost wetlands were a rich complex of types including marsh, wet prairie, fens, forested and shrub wetlands. The Department's success in developing moist soil habitat (*A Summary of Successes – The MDC Wetland Management Plan, 1989-1997*) highlights the opportunity to now expand our focus toward the other types of wetlands that comprise the ecosystem. A focus on managing for a diversity of wetland types is the next natural step in the continuing progression of wetland management in Missouri. This step was articulated in the 1997 draft Department Wetland Management Plan. The statewide draft plan was not finalized since the development of Regional Management Guidelines (RMGs) was about to begin. The RMG process did not, however, replace the need for statewide direction, which should continue to evolve and improve as does our understanding of the resource and our ability to manage it. RMG documents defined wetland types differently, which make rolling-up regional wetland accomplishments to the unit and state level difficult. The need for statewide direction and accomplishment tracking ability should be initiated through Department adoption of a standard classification system and subsequent wetland inventory.

#### Desired Results

- ❖ Adoption of the National Wetland Inventory (NWI) classification system (Cowardin et al., 1979) as the Department-standard wetland classification system..
- ❖ A formal inventory, using the Department-standard classification system, of all Department wetlands.
- ❖ Reevaluation of wetland goals and objectives, based upon the scientific inventory of Department wetlands.
- ❖ A system to track Department wetland restoration and management statewide.
- ❖ An increase in the number and acreage of forested wetlands, wet prairies, fens, late successional marshes and shrub wetlands on Department areas.
- ❖ An increase in the number and acreage of forested wetlands, wet prairies, fens, late successional marshes and shrub wetlands on private land.

*Target Geography:* Statewide

*Progress:* No measurable progress has been made on this issue during the past year. This issue was not promoted or communicated at the unit or regional level and any increases in wetland acreages would have been reported through the RMG accomplishment reporting process. Since regions define wetland types differently, reporting wetland accomplishments has little meaning.

#### Performance Measures

- ✓ Acres of forested wetlands, wet prairies, late successional marshes and shrub wetlands on Department areas.
- ✓ Acres of forested wetlands, wet prairies, late successional marshes and shrub wetlands on private land.
- ✓ Acres of fens and seeps identified and protected on Department areas.
- ✓ Number of Department areas with breeding populations of American bitterns, least bitterns, teal and rails.
- ✓ Number of Department areas with a population of eastern massasaugas and western chicken turtles.

- ✓ Number of late successional marsh and shrub wetland acres designated as Natural Areas.

*Performance Report:* Due to lack of a Department-standard wetland classification system and use of standardized terms, it is not possible to determine statewide progress on a number of the above measures. Because the entire issue was not promoted or communicated at the unit or regional level, breeding populations of select species were not counted.

- There is a chicken turtle population at Big Cane C.A. (no additional populations this year) and a turtle shell was found this year at Sand Pond C.A. (potential new population there).
- There are currently no areas with an eastern massasauga population. Surveys will be done this year on potential C.A.s in hopes of finding eastern massasaugas.

*Recommendations:* Keep the issue and commit the staff and resources necessary to accomplish the first two desired results in the upcoming year. This issue is best addressed if the following occur: 1) adoption of a Department-standard wetland classification systems, 2) wetland area managers complete a training class on the common classification system, 3) an inventory of all Department wetlands, using the Department-standard classification system, and 4) reevaluation of wetland goals and objectives, based upon scientific inventory of Department wetlands.

**REVIEW TEAM:** Lead: Jane Epperson; Participants: Jeff Briggler, Norb Giessman





## Goal 1: Preserve and Restore the State's Biodiversity

### Strategic Issue #8: Bottomland Forest Restoration and Sustainable Management

Bottomland forests support a diversity of plant and animal communities and protect water quality. However, many bottomland forests throughout the state are degraded. Major floods in 1993 and 1995 killed or damaged thousands of acres of bottomland forests along the Missouri and Mississippi rivers and many of their tributaries. Many bottomland forests were declining prior to the floods because of increased soil saturation caused by levees, dams, or other artificial means of water control. Because of the important functions of bottomland forest systems, their restoration and sustainable management is desirable. Many efforts to re-forest degraded or regenerate mature bottomland forests have been marginally successful. Artificial regeneration in degraded bottomland forests has been hampered by weedy competition such as reeds, canary grass, ricecut grass, or Johnson grass and early-successional woody species such as willow and cottonwood. Moreover, natural regeneration of desirable woody species in many mature bottomland forests is inadequate. Restoration and sustainable management problems are exacerbated by attempting to re-establish woody species that are either poorly adapted or are not adapted to the present-day hydrology. Some sites now may be too wet for re-establishing forest vegetation. Methods are needed for evaluating present-day hydrology and site conditions, and matching suitable species and silvicultural systems to these conditions. Also, more attention should be given to assessing potential impacts that extreme floods may have on restored bottomland forests.

#### **Desired Results:**

- ❖ Effective bottomland forest restoration and sustainable management methods, and information for Department managers to use on both public and private land.
- ❖ Increased acres of healthy bottomland forest on public and private lands throughout the state.

*Target Geography:* Statewide

#### *Progress:*

**Public Land** — The last Department review of wetland areas (1998) stated that there were 43,683 acres in bottomland forest on those areas. This number was arrived at by polling the regional managers and represents their best estimate of the acreage of bottomland hardwood forests and greentree reservoirs in wetland areas at the time. The wildlife research biologist who collected these data cautioned that they should be "taken with a large grain of salt." By summarizing the acreage from the RMG's, we have about 22,500 acres that are being restored or managed. There is currently no way of breaking out bottomland hardwood cover types or bottomland ecological land types (ELT) in the database for all public lands owned or administered by the Department. One possible method would be to overlay the vegetation cover layer on the state lands layer in the Department GIS system and then calculate the acreage, but this would only approximate the actual total and introduce new and unknown sources of variation.

**Private Land** — The Department provides technical assistance to landowners wishing to restore or manage bottomland hardwoods and offers cost share practices (e.g., tree/shrub enhancement, woodland improvement) to further enhance their efforts.

### **Performance Measures**

- ✓ Number of acres of bottomland hardwood forest in state lands at the end of the fiscal year.
- ✓ Number of acres of bottomland hardwood forest acquired.
- ✓ Number of acres of bottomland hardwood sites planted.
- ✓ Number of acres of bottomland hardwood forest brought into management (via some combination of cutting, herbicides, etc.).
- ✓ Number of acres of private bottomland hardwood forest brought into management (via some combination of cutting, herbicides, etc.).
- ✓ Number of research studies to identify suitable bottomland forest restoration and sustainable management methods for different bottomland systems and landtype associations throughout the state.

### **Monitoring Studies**

- Four Rivers CA. Success of direct-seeded pecan and pin oak vs. bare-root and RPM seedlings.
- Hamburg Bend Demonstration Study. RPM vs. bare-root seedlings; normal vs. mounded planting sites.
- Ted Shanks CA Demonstration Study. Regeneration and monitoring.
- Evaluation of post-planting vegetation management techniques and deer browse control techniques for an Ozark bottomland hardwood restoration at the Woodson K. Woods CA
- Duck Creek Monitoring study (in conjunction with on-going research).
- Bottomland reforestation research and demonstration at the Dr. Frederick Marshall CA.

### **Research Projects**

- Evaluating artificial and natural regeneration methods for oaks in bottomlands. Duck Creek CA. John Kabrick, Mike Anderson, Dave Wissehr, Eric Zenner, Dan Dey (USFS).
- Soil temperature and moisture on mounded and non\_mounded planting sites in artificial forest restoration. Plowboy Bend/Overton Bottoms CA's. John Kabrick, Jennifer Grabner, Dan Dey (USFS).
- Restoring oaks in the Missouri River floodplain. G. W. Shaw and Rose-Marie Muzika, University of Missouri, Dan Dey, USFS and John Kabrick, MDC Forestry Research.
- Number of supporting technical papers providing information on bottomland forest restoration and management derived from monitoring and research and other information sources.
- Kabrick, John and Mike Anderson. 2000. Oak stump sprouting in mature bottomland forests at Duck Creek Conservation Area. Jefferson City: Missouri Department of Conservation Forest Research Report No. 2. 9 p. + ii.
- Kabrick, John and Daniel Dey. 2001. Silvics of Missouri Bottomland Tree Species. Jefferson City: Missouri Department of Conservation Notes for Forest Managers Report No. 5. 8 p.
- Development and use of Department guidelines on bottomland forest restoration and management.

*Recommendation:* As listed, the issues are achievable and, with some reservation, relevant. The chief concern stated by the managers and researchers polled was that the "number of acres" measure seems vague, because there is no definition about restoration quality, and no discussion of whether the Department is meeting the objectives the Regional Coordination Team sets for each individual holding. We need to compare the number of acres of restoration projects to the total number of acres of current bottomland hardwood forests and potential bottomland forests. The latter are sites that are currently something else, say agricultural fields, which are being restored to a bottomland hardwood vegetation composition.

Restoration using natural regeneration is an on-going process and documenting 'accomplishments' is difficult for any one year. One regional forestry supervisor suggested that we use a "thermometer"



type scale like United Way campaigns, showing percent progress for each property. Determining the success in bottomland hardwood forest restoration requires people to set explicit and measurable objectives for each parcel, which is not complete, but make some progress.

At some time measures should be added that would specify reporting on results of research, not simply list numbers of papers. The introductory paragraph for this strategic issue cites marginal success of restoration efforts and the need for methods to assess and restore these hardwood systems. Indeed, the Performance Report suggests that reporting on these kinds of things should be done. Perhaps adding a Performance Measure consistent with that would be desirable.

**REVIEW TEAM:** Lead: Keith Moser; Participants: Wayne Porath





Goal 1: Preserve and Restore the State's Biodiversity  
Strategic Issue #9: Control of Invasive Exotic Species

Modern transportation and commerce, and peoples' propensity for unique or improved species has led to the introduction of many invasive exotic species to Missouri. Some of these species like purple loosestrife, zebra mussels, feral hogs, big head carp, and kudzu are extremely aggressive and negatively affect Missouri's native species. The Department cannot meet its mandate to safeguard Missouri's natural resources without addressing the control of these alien invaders.

**Desired Results**

- ❖ Reduced distribution and densities of select invasive exotic species.
- ❖ Prevent the establishment of additional invasive exotic species.

*Target Geography:* Statewide

*Progress:* The Department continues to publicize the issue through articles, pamphlets and support of noxious weed legislation. Division managers include the reduction and elimination of exotic species in their yearly management objectives and operation plans. Regional Natural History biologists assist with identification of invasive exotic species on natural areas and public lands, providing management recommendations for control and eradication.

Based on recommendations approved by the Conservation Commission on November 21, 2000, Fisheries Division developed and began implementation of an action plan for controlling the use of black carp by the aquaculture industry. Fisheries Division staff communicated with other state fisheries chiefs and lobbied for their support in efforts to stop the spread of black carp.

Staff continue to monitor the spread of zebra mussels in Missouri waters in an effort to slow their spread. Informational posters and fliers were produced and distributed.

An invasive aquatic species plan was drafted by Fisheries Division.

**Performance Measures**

- ✓ Distribution and abundance of select invasive species.

*Performance Report:* The Natural Area annual report reflects invasive exotic species occurrence, location and abundance on Natural Areas. Area managers report renovation of fescue on IMS system, however there is no report on other selected species on state lands. Private Land Services Division has a crew that identifies and treats occurrences of purple loosestrife statewide. The occurrence of invasive species is documented during the course of fish population and habitat surveys, and that information is passed along to appropriate Department staff.

**REVIEW TEAM:** Lead: Don Martin; Participants: Marlyn Miller, Tim Smith, Ginny Wallace





## Goal 1: Preserve and Restore the State's Biodiversity

### Strategic Issue #10: Chronic Wasting Disease

Chronic wasting disease (CWD) is a fatal neurologic disease affecting white-tailed and mule deer and elk. Thought to be caused by proteinaceous infectious particles, or prions, the disease is part of a group of diseases called transmissible spongiform encephalopathies. There is no live animal test for these diseases. Currently CWD exists in wild cervid populations in CO, WY, NE and the province of SK, it has been reported in captive cervid populations in CO, KS, MT, NE, OK, SD, and the province of Saskatchewan (SK). There are 3 ways chronic wasting disease could be introduced into wild white-tailed deer populations in Missouri: the disease could occur spontaneously, an infected wild deer or elk could disperse to Missouri from CO, WY, or western NE, or the disease could be transported into Missouri through the captive cervid industry. As steward for Missouri's deer herd the Department should take necessary actions to prevent the introduction of this disease into the state's wild deer. A CWD monitoring/surveillance program will allow us to take appropriate actions to contain the disease should we find it in the state. It is also important to keep the public/media informed to ensure cooperation and not create panic or uncertainty among the public. Disease monitoring will enable us to make local contacts with hunters and collect and report information on the health of Missouri deer.

#### **Desired Results**

- ❖ Create regulations that reduce risk of introducing CWD to wild Missouri deer.
- ❖ Maintain healthy deer populations; monitor wild deer for CWD at hunter check stations.
- ❖ Create contingency plan outlining course of action for dealing with CWD if it is found in captive or wild deer populations in the state.
- ❖ Maintain public interest in deer and deer hunting in Missouri.

#### **Performance Measures**

- ✓ Number of deer checked for CWD.
- ✓ Number of positive cases of CWD in captive or wild deer.
- ✓ Number of media and press releases about CWD.
- ✓ Public attitudes towards deer and deer hunting in Missouri.









## Goal 1: Preserve and Restore the State's Biodiversity

### Strategic Issue #11: Prairie-Chicken Population Decline

The trend of the resident prairie-chicken population is best described by annual counts made along 13 southern routes that include 236 square miles. In 1999, a total of 169 birds on booming grounds were counted on these surveys. This is up slightly from 1998's count of 127 birds, but isn't enough to indicate a detour from the long-term downward trend that has been in place since the late 1960s. If the trend set over the past 30 years continues, Missouri's birds will be gone in 10 years. In 1988, the Department conducted a statewide census of prairie-chickens on booming grounds that has since been repeated on a five-year interval. If we exclude those populations in northern Missouri established from re-introductions, the dramatic decline of our resident population is very apparent. In 1988, 1,400 male prairie-chickens were counted statewide; in 1993, 1,045; and in 1998, 370. Declines have occurred across the range and across all levels of habitat quality. Quantity and quality of habitat sets the upper and lower limits to which a population rises or sinks. Landscape scale improvement continues to be our the viable option to reversing the trend.

#### Desired Results

- ❖ Positive trend in resident prairie-chicken population numbers.

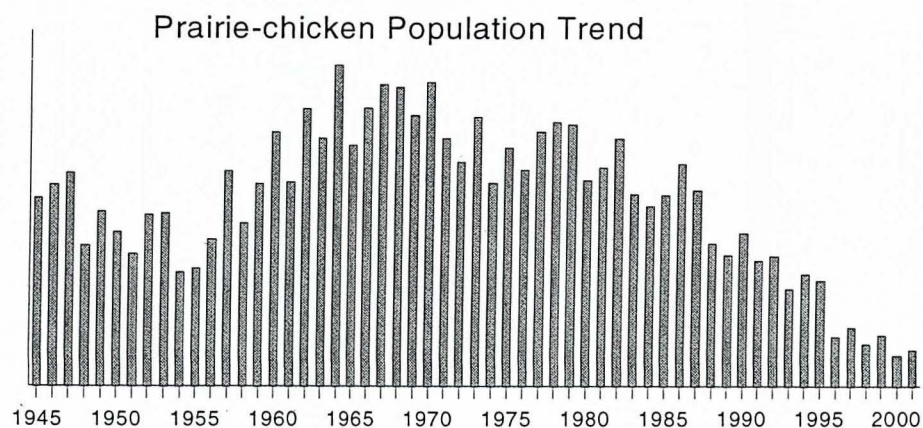
*Target Geography:* NW, NE, WC, C, and SW Regions

*Progress:* Annual census information from spring lek surveys indicates no divergence from the downward trend initiated in the 1970s.

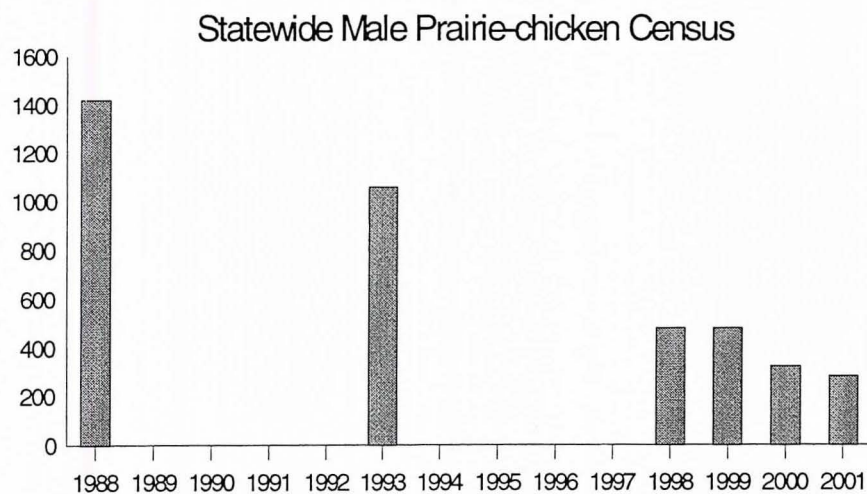
#### Performance Measures

- ✓ Statewide population trend numbers.

*Performance Report:* From annual Greater Prairie-chicken Status Report



This issue is being aggressively addressed by increasing habitat quantity and quality and indirectly through increasing the awareness of the problem, but the goal of a positive population trend for the Greater Prairie-chicken in Missouri has not been recognized. During the interim period while the habitat base is being brought up to a level to first stabilize then increase populations it may be best to track performance measures beyond the prairie-chicken population trend. Progress in FY 2001 has largely been in the form of awareness of the issue and movement toward habitat improvement within nine focus areas defined by the Grassland Coalition. The Lek Trek, a statewide awareness campaign was completed with an estimated 7,500 individuals involved in events and 1.5 million receiving information through media sources. A Fall and Spring prairie-chicken newsletter were distributed to approximately 1200 subscribers. We propose to track actual increases in acreage of usable habitat that result from the creation of grassland habitat or improvement of grassland to the level where it becomes useable by Greater Prairie-chickens. One hundred ninety one acres have been planted to prairie seed mixes to re-establish prairie within focus areas. Brush was removed along 4+ miles of fencelines and from 420+ acres of grasslands on five focus areas. Electric fencing was experimentally installed on 70 acres of a prairie-chicken nesting area as a predator deterrent. Nine hundred and fifty six acres were acquired for grassland management (Perkins Tract - 246 acres and Westlake Tract - 710 acres in Harrison County). Grants received included \$50,000 from the Fish and Wildlife Foundation and \$30,000 from the Fish and Wildlife Service for management, \$100,000 from Phillips Petroleum towards purchase of additional lands and a \$25,000 Wildlife Habitat Improvement Program (WHIP) proposal for private lands habitat work.



**REVIEW TEAM:** Lead: Larry Mechlin; Participants: Dennis Figg, Lorna Domke





Goal 1: Preserve and Restore the State's Biodiversity  
Strategic Issue #12: Decline in Quail and Rabbit Populations

In the last 30 years small game populations, specifically quail and rabbit, have experienced dramatic declines. A corresponding decline has also been noted in the number of small game hunters. There are several factors that can affect quail and rabbit population levels; however, this long-term decline is likely the result of large-scale habitat changes. If we hope to maintain Missouri's small game hunting heritage, we must do a better job of managing our public lands for small game populations and find new ways to promote the development and maintenance of early-successional stage habitat on private lands.

**Desired Results**

- ❖ Achieve positive long-term (>5 years) trends in the statewide Conservation Agents' July rabbit roadside index and the Agents' August quail roadside index.
- ❖ Achieve a fall quail density of 1 bird per 2 acres on at least 1 conservation area in each management region.

*Target Geography:* Statewide

*Progress:* Statewide quail management plan has been submitted for approval.

**Performance Measures**

- ✓ Increase population numbers for quail.
- ✓ Increase population numbers for rabbit.
- ✓ Increased number of small game permit holders.

*Performance Report:*

- The 2000 total quail index (average number of quail per 30-miles of Agents' August survey of roadside routes) of 5.05 is 34% above the 1999 count (3.78). However, quail numbers are still depressed compared to the long-term numbers. The 2000 total quail index is 45% below the long-term average (9.13, 1983-1999), and 70% lower than the recent high index observed in 1987 (16.85 quail).
- The 2000 statewide rabbit count (average number of rabbits per 20-miles of Agents' July survey of roadside routes) of 0.78 rabbits per mile is 26% above the count for 1999 (0.62), and 12% below the long-term average (0.89, 1983-1999).

**REVIEW TEAM:** Lead: Tom Dailey; Participants: Lorna Domke, Bob White







## Goal 1: Preserve and Restore the State's Biodiversity

### Strategic Issue #13: Regional Biodiversity Conservation

In 1994 the Missouri Biodiversity Council endorsed a plan by the Missouri Biodiversity Task Force to pursue data development and subsequently a comprehensive, ecologically based assessment of Missouri's biodiversity. Over the past six years, Missouri Resource Assessment Project and its partners have been working to develop the digital databases necessary to pursue such an effort. Key layers now available include an ecological classification system (ECS), classified stream networks, current land cover, digital heritage database, vertebrate species distribution models, and public lands. Using the ECS as a framework, we are now prepared to systematically identify conservation targets within eco-regions at the landscape, community and species levels, and then pursue an assessment of the key landscapes and sites for conserving these targets. The resulting maps, databases and information system could provide the basis for setting priorities and pursuing comprehensive biodiversity conservation.

#### **Desired Results:**

- ❖ A set of maps and databases identifying key conservation landscapes and sites are easily accessible by all MDC regions.
- ❖ MDC regional staff participate in the selection of key landscapes and sites, and use them to prioritize and pursue conservation activities.
- ❖ Public and private land partnerships are formed to achieve complementary conservation actions within target landscapes and sites.

#### **Performance Measures:**

- ✓ Maps and databases exist and are functioning in all regional offices.
- ✓ Over half of the key conservation landscapes and sites have biodiversity conservation plans written and implemented.
- ✓ Stable and/or increasing numbers and quality of native species and ecosystems.

**REVIEW TEAM:** Lead: Tim Nigh







## Goal 2: Inform and Educate the Public about Conservation

### Strategic Issue #1: Conservation Education

As our human population increases and becomes more urbanized, opportunities for people to interact with fish, forest, and wildlife resources diminish. These resources may be perceived by many residents as unimportant to their daily lives and survival. Therefore, providing opportunities for direct experience with natural resources, as well as teaching people about the benefits of those resources, is critical.

Conservation Education encompasses a wide variety of audiences and opportunities. Family programs at nature centers and interpretive sites, workshops for landowners, presentations to civic organizations, interaction with youth groups and FFA chapters, teacher instruction, outdoor classrooms, and direct classroom instruction are all important opportunities for teaching Missourians about their natural heritage. Every employee has a role in this process.

#### **Desired Results**

- ❖ All Missourians understand the relationship and value of plant and animal communities to our social and economic well being.
- ❖ Strong public support for conservation of fish, forest, and wildlife communities.
- ❖ All Missourians understand the role of management in restoring, improving, maintaining and sustaining healthy plant and animal communities.
- ❖ All students in grades K-12 receive positive conservation messages during their education, through MDC produced products and through teacher participation in MDC teacher training.

*Target Geography:* Statewide

*Progress:* (The following information is available from the O & E Annual Report. Stream Team and Forest Keeper activity is available from Fisheries and Forestry annual reports.) Information on citizen support is available from the *Conservation Monitor*.)

- Project Learning Tree facilitators conducted 19 workshops for 277 educators; Project WILD facilitators conducted 20 workshops for 350 educators. 350 participants attended the Conference on Environmental Education at Tan-Tar-A; about half of those were teachers. Staff worked with 5 teams of teachers to use conservation as the basis for teaching math, science, social studies and language arts. Two new curriculum pieces were developed and distributed to 3<sup>rd</sup> and 4<sup>th</sup> grade teachers and students statewide: Rivers & Streams Habitat Pack and Forest Habitat Pack. Kid's Connection Newspapers were distributed to approximately 250,000 kindergarten, first and second grade students. *The Resource Educator* newsletter was printed four times and distributed to 10,000 teachers and non-formal educators.
- The Public Relations specialist presented 233 programs to 33,498 people.
- Conservation Nature Centers and Interpretive sites hosted over 900,000 visitors, and presented programs to over 217,000 people. Conservation Education Consultants conducted over 300 workshops for approximately 8,000 teachers. They contacted an additional 13,000 teachers through school visits, outdoor classrooms, conferences, etc. In addition, education staff presented programs to 57,000 students in classrooms and through events such as skills camps, urban fishing programs and student eagle days.
- The *Conservationist* was distributed to about 460,000 homes monthly.
- The *Missouri Outdoors* television program aired throughout the state on 32 stations.

### **Performance Measures**

- ✓ Number of students receiving conservation education materials.
- ✓ Number of teachers receiving conservation and environmental education training.
- ✓ Number of schools developing and using outdoor classrooms.
- ✓ Citizen attitudes about conservation issues.
- ✓ Number of Stream Teams, Forest Keepers, Conservation Frontiers participants, and Department Volunteers.
- ✓ New information posted to the Department's website, including education materials and watershed assessment and inventory reports.

*Performance Report:* See progress report above.

**REVIEW TEAM:** Lead: Ginny Wallace; Participants: Marlyn Miller, Bob Staton, Mike Hoffman





## Goal 2: Inform and Educate the Public about Conservation

### Strategic Issue #2: Human/Wildlife Conflicts

Missouri's increasing human population, urbanization, highway construction and wildlife populations, especially those of deer, resident Canada geese, skunks, beaver, raccoon, river otter, and coyotes, are contributing to an increasing number of human/wildlife conflicts. These conflicts include both nuisance and damage incidents that are often exacerbated by the activities/practices of the land- or homeowner, or that of their neighbor(s), and are perceived differently by each individual depending on his/her values and tolerances. The Department's goal must be to provide timely, effective assistance to landowners experiencing wildlife conflicts, while also teaching people about living with wildlife, and managing populations of various species at levels consistent with the local communities' tolerance. Skunks, beaver, river otter, raccoon and coyotes currently are the furbearers most frequently involved in the human/wildlife conflicts. Considering currently low fur prices and their relationship to trapping effort and harvest, we should expect more conflicts involving these species and should be prepared with Department personnel trained to respond accordingly.

#### **Desired Results**

- ❖ Managed populations of urban Canada geese consistent with community tolerance.
- ❖ Managed populations of deer in urban areas consistent with community tolerance.
- ❖ Effective and timely response to wildlife nuisance/damage complaints.
- ❖ Healthy furbearer populations while minimizing damage complaints and disease risks.

*Target Geography:* Statewide, with emphasis on urban areas.

*Progress:* The Fish and Wildlife Service recently granted authority to states to resolve Canada goose problems. Subsequently, in 2001 we removed geese from three urban areas, and we anticipate future removals as needed. Staff continues to work with municipal officials and other landowners regarding Canada goose and deer management practices and strategies. Additionally, staff continues to provide appropriate information, and sometimes equipment, usually within 24 hours.

#### **Performance Measures**

- ✓ Number of goose nuisance/damage complaints in urban areas.
- ✓ Number of deer nuisance/damage complaints in urban areas.
- ✓ Number of deer damage complaints in urban areas/management zones.
- ✓ Number of road-killed deer documented by municipalities.
- ✓ Complainant's satisfaction with service provided.
- ✓ Response time to assistance requests.
- ✓ Furbearer populations' indices (Archer's Index and Sign Station Survey) and harvest numbers.
- ✓ Number of nuisance/damage complaints, by species.

*Performance Report:* Recent removal of geese in three urban areas has reduced population levels in some areas and also addressed specific nuisance/damage complaints. One St. Louis area municipality continues to trap-and-relocate deer by special permission from the Commission. Population levels of deer in urban areas is difficult to measure, but the number of complaints received by staff in the two major urban areas has been relatively constant through time. The number of complaints regarding various nuisance/damage species is relatively consistent through time. Staff typically respond to citizen requests for assistance within 24 hours. Complainant's satisfaction with service provided has



not been well measured in the past, but will soon be measured through the Conservation Monitor survey.

**REVIEW TEAM:** Lead: Bill Heatherly; Participants: Marlyn Miller, Joan McKee, Protection



### Goal 3: Help Landowners Manage Their Land for Sustainable Resources Strategic Issue #1: Private Land Stewardship

Missouri is approximately 93% privately owned. Most wetlands and prairies have been lost or severely fragmented due to agricultural uses or urbanization. Grassland birds are in serious decline. Riparian corridors are row-cropped or over-grazed by cattle. Habitat fragmentation threatens biodiversity. And forest landowners face difficult choices for managing their forest lands wisely and profitably. Our efforts must be better grounded in detailed information about the land and landowners, including new ideas on how to increase landowner awareness about the resources, and ways to influence the behavior of landowners. Moreover, all landowners motivated to improve their land for conservation purposes expect and deserve timely responses from our agency.

#### **Desired Result**

- ❖ Landowners actively protecting, managing, and/or restoring fish, forest, and wildlife habitats or natural communities.
- ❖ Measurable positive changes in the landscape.
- ❖ Excellent service to landowners.

*Target Geography:* Statewide

*Progress:* Many significant accomplishments have been achieved in the private land arena during recent years including: implementation of the Private Land Services Division, and significant habitat improvements through partnerships with federal agencies such as the Natural Resources Conservation Service (NRCS).

In September 1999, Commission action established the new Private Land Services Division. This aggressive new program has national significance, and once again, puts Missouri out in the forefront on important conservation issues. The Private Land Services Division includes a dedicated staff of resource professionals working with private landowners to improve forest, fish, and wildlife conditions on their property; personnel to establish partnerships with other state and federal agencies, commodity groups, and agribusiness interests; and financial assistance to facilitate implementation of management techniques. The mission of this Division is to help Missouri landowners achieve their land use objectives in ways that enhance the conservation of Missouri's natural resources. Since its establishment, the Division has been fully staffed, an eight week training academy was developed and completed, a cost share program has been updated and implemented, additional partnerships have been developed with Quail Unlimited (QU) and Ducks Unlimited (DU), a private land services website was developed, and direct landowner assistance has been initiated. The desired outcomes include: enhanced management of fish, forests, and wildlife resources, improved land ethic among landowners, increased trust for the Department's mission, and better involvement in local communities. This landowner assistance program is a long term commitment to the citizens of Missouri to enhance the fish, forest, and wildlife resources of the state, and will carry us well into the future of conservation.

The Department's cooperative programs with the NRCS have resulted in significant habitat accomplishments. The NRCS Wetlands Reserve Program (WRP) have contributed nearly 90,000 acres of restored wetlands and associated habitats in Missouri. Wetland Services Biologists, as part of an inter-agency team, have provided the biological expertise needed for successful restoration and



subsequent management of these acres. MDC staff has been instrumental in writing national guidelines and creating an efficient system to streamline program implementation. This ability to complete WRP easements and restorations have resulted in millions of additional federal dollars coming to the state for this program.

Other progress to improve private land stewardship includes:

- Published articles on private lands in the *Missouri Conservationist* and plan to do more.
- Published and distributed two new free landowner management booklets (one on grasslands and one on forests), which should help give landowners the knowledge they need to manage their own acres.
- Produced and distributed two new videos (one on landowners with endangered species and the other on wildlife management on Conservation Reserve Program lands) which are being used by MDC staff to educate landowners.
- The Grow Native and Missouri Ecotype Programs have been enhanced to provide a more integrated approach to developing supplies of native plant materials and markets for Missouri native plants.
- Landowner councils and conservation forums have been formed to provide customer-based input to MDC staff on programs and program delivery.
- Private Land Services staff have provided additional workshops and other education and outreach efforts for landowners.
- Urban Watershed Conservationists in Kansas City and St. Louis are addressing urban sprawl in ways that protect and enhance natural resources.
- Partnership efforts with non-governmental conservation organizations have been bolstered to leverage funding and provide focused landowner assistance on critical habitats. These include partnership funding with QU, DU, National Fish and Wildlife Foundation, National Audubon Society, Missouri Audubon Council, The Nature Conservancy, National Wild Turkey Federation, and others.
- Additional partnership efforts with related state and federal agencies provide an avenue to integrate forest, fish, and wildlife management into other natural resource programs.

See Fisheries Division's portion of the FY01 Department annual report and the FY01 performance report for Federal Aid project F-50-D.

#### **Performance Measures**

- ✓ Total number of cooperative landowner projects and resource management plans (i.e., Stewardship plans, LAWS contracts, CRP and WRP contracts, stream habitat improvement projects, Forest Cropland contracts).
- ✓ Total number of acres affected by cooperative projects and management plans (i.e., Stewardship plans, LAWS contracts, CRP and WRP contracts, stream habitat improvement projects, Forest Cropland contracts).
- ✓ Number of local governments/communities assisted with forest management.
- ✓ Number of landowner contacts.
- ✓ Landowner attitudes measured by surveys.
- ✓ Documented positive changes in the landscape using GIS imagery.
- ✓ Number of landowners who manage and harvest trees following a professionally developed plan.

*Performance Report:* Wildlife Division, through the Integrated Management System, tracks accomplishments in the area of technical assistance provided to private landowners. Wildlife management biologists record monthly accomplishments as individual contacts. The new RAPTOR system will also report acres for each habitat type planned. Following is an excerpt from Wildlife



Division Annual performance report FY00 to the Fish and Wildlife Service as a requirement of Federal Aid Project W-93-D:

<b>Technical Assistance</b>		
Contact - Farm Plans	1,011	Contacts
Contact - Incentive Programs	172	Program Contacts
Workshops/Programs	11,427	Contact Hours
Interagency Coordination	938	Contacts

See Fisheries Division's portion of the FY01 Department annual report and the FY01 performance report for Federal Aid project F-50-D.

Forestry Division reports show that Department staff contacted approximately 3900 forest landowners who own 400,000 acres during FY2001.

<b>Habitat Type</b>	<b>Number of Landowner Visits</b>	<b>Number of Acres (planned or applied)</b>
Forestry	2,849	210,292
Grassland	1,275	71,360
Impoundments	820	4,329
Natural Communities	260	15,129
Nuisance Wildlife	1,062	0
Openland	3,470	78,590
Riparian	475	12,104
Streams	354	254818 feet
Urban	134	316
Wetland	420	39,869
<b>TOTALS</b>	<b>11,119</b>	<b>431,989</b>

Acres includes total acres treated, either planned or applied. For example, Recommendations on a 100 acre farm may include 10 ac. of completed TSI and 10 ac. of planned tree planting on the same 10 acres. The "Acres" total will show 20 acres.

**REVIEW TEAM:** Lead: Steve Young; Participants: Don Martin, Marlyn Miller, Lorna Domke, Terry Roberson, Brian Brookshire





### Goal 3: Help Landowners Manage Their Land for Sustainable Resources Strategic Issue #2: Decline of Fish and Wildlife Benefits Associated with Agricultural Lands

Nearly 65% of the land in Missouri is in agricultural production. Agriculture contributes \$4.5 billion per year to the Missouri economy and forest resources contribute another \$3 billion per year. Fish and wildlife related recreation contributes \$2.1 billion per year to the Missouri economy and many species of fish and wildlife reside and depend on the agricultural landscapes of Missouri.

Agricultural production that is in concert with sound conservation is essential to maintain the economic vitality of farmers and rural communities, ample food/fiber to meet the nation's needs and sustainability of fish, forest and wildlife resources. The Farm Bill delivers billions of dollars annually to ensure farm income is adequate to sustain farmers as well as to ensure conservation on agricultural lands. The Farm Bill touches nearly every piece of land in agricultural production and has tremendous potential to accomplish conservation purposes in concert with the reasons people own and manage farmland. For example, the 1985 Farm Bill created the Conservation Reserve Program which has been a centerpiece of federal conservation ever since, the 1990 Farm Bill added the Wetlands Reserve Program and the 1996 Farm Bill added the Wildlife Habitat Incentive Program and the Environmental Quality Incentive Program. The 2002 Farm Bill is currently in deliberation and it is likely that there will be another Farm Bill sometime between 2007 and 2012.

#### ***Desired Results:***

- ❖ Increased numbers of landowners participating in Federal conservation programs.
- ❖ Increased federal funding of conservation programs.
- ❖ Improved forest, fish, and wildlife management of existing lands enrolled in federal Farm Bill programs.
- ❖ Implementation of a 2002 Farm Bill with enhanced conservation elements.
- ❖ Increased effort within Openlands Initiative, EQIP, and other focus areas.
- ❖ MDC Cost Share Docket that compliments other state and federal programs.

*Target Geography:* Statewide

#### ***Performance Measures:***

- ✓ Passage of a Farm Bill that enhances conservation elements of existing programs.
- ✓ Number of landowner participating with forest, fish, and wildlife provisions in existing programs.
- ✓ Funding levels for conservation programs.
- ✓ Number of acres affected by federal Farm Bill programs.
- ✓ Habitat changes on a landscape scale documented using Geographic Information Systems.

*Performance Report:* The following depicts progress achieved through 1996 Farm Bill programs:

#### Conservation Reserve Program (CRP)

In addition to providing soil, water, and wildlife conservation benefits, the CRP provides Missouri farmers and landowners with a practical alternative to farming lands that often do not return a profit.

- \$2.9 billion received through 25,000 contracts held by Missouri landowners.
- 1.4 million acres enrolled in CRP.



#### Wetlands Reserve Program (WRP)

WRP was created by the 1990 Farm Bill and implemented in 1992. The program restores wetlands and secures long-term protection.

- 75.6 million paid to landowners to voluntarily restore wetlands on 549 tracts of land in Missouri.
- Over 85,000 acres of wetland restored.

#### Wildlife Habitat Incentives Program (WHIP)

WHIP was created by the 1996 Farm Bill and provides cost-share to help landowners provide critical habitat for wildlife associated with agricultural landscapes (such as the prairie chicken) and that have been on decline.

- \$1.3 million provided to fund 298 WHIP contracts in Missouri.
- Over 27,000 acres of critical wildlife habitat restored.

#### Environmental Quality Incentives Program (EQIP)

EQIP helps landowners to develop conservation systems to better conserve soil, water, wildlife and related resources (i.e. livestock waste management, grazing, integrated crop management and water management).

- \$15.6 million has been delivered to Missouri landowners through over 2,100 contracts.

#### Forestry Incentive Program (FIP)

FIP assists owners of private forest land with managing those lands to sustain the forest resource.

- \$65,000 through 82 contracts, since 1997, provided to improve management of Missouri forests.
- Over 2,126 acres of forest land enhanced.

Other available reports include:

- MDC Cost Share expenditures
- Progress reports from Headwaters EQIP, Pawnee Prairie Focus Area and other focus area reports
- Private landowner visit accomplishment reports

**REVIEW TEAM:** Lead: Steve Young; Participants: Don Martin, Marlyn Miller, Lorna Domke, Terry Roberson, Brian Brookshire



## Goal 4: Public Land that Invites Public Use

### Strategic Issue #1: Conservation Area Enforcement

The Department currently owns or leases over 950,000 acres of public land on 1,072 conservation areas statewide. Approximately 470 of these areas provide access to Missouri's rivers, streams and lakes. Citizens' use of these areas continues to increase and reaches far beyond hunters and fishermen. Today Department areas are routinely used for activities such as camping, boater access, hiking, horseback riding, and family picnics. Unfortunately, undesirable activities like drug production and use (e.g., growing marijuana and producing methamphetamine drugs), drinking parties and vandalism also occur on some areas. Associated with this increased public use is the expectation that conservation agents should routinely patrol these areas to ensure public safety, protect property and enforce state laws and Wildlife Code regulations. To address non-resource violations and enforcement problems, regions have used intensive special patrols to curtail illegal activities. Additionally, these special patrols to reduce non wildlife related crimes have resulted in fewer hours available for conservation agents to patrol lands and rivers for fish and wildlife related violations. Conservation agents' primary focus is toward enforcing the Wildlife Code, while often the majority of the general public expects they address non resource crimes on these areas.

#### **Desired Results**

- ❖ Prioritization of Wildlife Code enforcement on Department areas.
- ❖ Quality recreational experiences for all legitimate areas users.
- ❖ Safety for general public and Department area employees.
- ❖ Reduced vandalism on Department areas.

#### *Target Geography: Statewide*

*Progress:* Protection Division continues to emphasize resource enforcement as an important aspect of the Division's overall balance of responsibilities, while maintaining a commitment to the safety of the public and all Department employees on our areas. Conservation agents exercise police powers when necessary to protect the public and their fellow employees, as well as to reduce and prevent vandalism to Department property.

#### **Performance Measures**

- ✓ Public perceptions to determine if resource and non-resource crimes are decreasing or increasing.
- ✓ Frequency of violations on Department areas by types of crimes, frequency of crimes and court results for levels of punishment.
- ✓ Public satisfaction regarding safety and quality recreational experiences.

*Performance Report:* It would appear as though the general public is satisfied with the quality and safety they experience upon visiting our areas. Conservation agent contacts and the amount of complaints received are measures of public sentiment. The great majority of citizens contacted by Protection Division personnel indicate appreciation for areas suitable for family recreation. Very few complaints have been received from dissatisfied users of our areas. The few complaints received are generally regarding trash, vandalism or the reporting of violations. The attached table shows the number of resource and non-resource arrests made by conservation agents during the calendar years 1999 and 2000. This table clearly indicates that conservation agents are using police powers on public lands for the safety and protection of the public and Department property. The numbers also show that over 1/4 of our resource arrests take place on our areas. The number of violations detected on



Department areas, as well as the fines and court costs levied against offenders arrested on Department areas has not changed significantly from 1999 to 2000 and no inference can be made from those numbers. In summary, all measures point to a well balanced enforcement effort which is helping to make our areas quality recreational places that are safe for families and provide adequate protection for wildlife resources.

1999						
	RESOURCE ARRESTS	NON-RESOURCE ARRESTS	RESOURCE FINES	NON-RESOURCE FINES	RESOURCE CT COSTS	NON- RESOURCE CT COSTS
COUNTY	573	121	\$ 49,440	\$ 8,334	\$23,962	\$ 6,370
DEPARTMENT	1493	1386	\$ 49,123	\$67,627	\$68,518	\$70,845
FEDERAL	475	226	\$ 1,646	\$18,198	\$21,939	\$12,450
OTHER STATE	1016	397	\$ 47,068	\$27,954	\$45,474	\$20,977
PRIVATE	2018	120	\$154,590	\$11,506	\$85,054	\$ 6,888
2000						
	RESOURCE ARRESTS	NON-RESOURCE ARRESTS	RESOURCE FINES	NON-RESOURCE FINES	RESOURCE CT COSTS	NON- RESOURCE CT COSTS
COUNTY	564	115	\$ 40,091	\$ 8,813	\$24,688	\$ 5,637
DEPARTMENT	1831	893	\$ 55,349	\$44,281	\$81,239	\$47,519
FEDERAL	620	155	\$ 24,564	\$13,472	\$28,414	\$ 9,482
OTHER STATE	894	202	\$ 45,853	\$13,445	\$40,327	\$10,279
PRIVATE	1732	110	\$142,859	\$ 7,134	\$78,029	\$ 8,499

**REVIEW TEAM:** Lead: Bob White; Participants: Russ Titus, Marlyn Miller, Shannon Cave





Goal 4: Public Land that Invites Public Use  
Strategic Issue #2: Regulations for Public and Resource Management on  
Department Areas

A consistent theme outlined in Regional Management Guidelines is the need to simplify Department area regulations in a way that makes them understandable for the public and effective in resource management. Some Department areas are heavily utilized, thereby highlighting the need for regulations that are, in some cases, distinct from statewide regulations. Moreover, many staff seem to feel that 4.115 rules could be improved. Therefore, it is desirable that the Department continue what has been a long term effort to standardize 4.115 regulations, at least to the point of allowing managers to select from an array of regulation options designed to meet varying needs for area management.

**Desired Results**

- ❖ Clear, concise, and simple Wildlife Code regulations that promote greater public understanding and compliance.
- ❖ Simplified 4.115 regulations drawn from a list of alternative rules matched to specific management needs.

*Target Geography:* Statewide

*Progress:*

- A task force assigned by the Regulations Committee completed a review of area rules which resulted in a complete revamping of Department area regulations into new Chapters 11 and 12 in the *Wildlife Code*. This revision will enhance public understanding and compliance through simplification and better organization of area regulations by topic, and will enable managers to make more timely changes to specific rules.
- Deer regulations on Department areas were reviewed to simplify and consolidate. Managers now may choose from a list of alternative rules matched to specific management needs.
- A major Department area public use review is underway, along with an extensive review of field trials on Department areas. Camping opportunities and trail use are also topics being addressed in a systematic way. [Note: Recommend future inclusion of results of those reviews in this report, or under Goal 8: *Strategic Issue: Recreational Opportunities on Conservation Areas*. It appears it may fit better there.]
- Regional Coordination Team involvement in the regulations process continues to be refined. This organized process promotes active involvement in area regulation development at the field level to ensure that managers and others have the opportunity to make timely rule changes for proper management of Department areas.
- A user-friendly internet version of Chapter 11 and 12 regulations grouped by conservation area will be available for the public as well as MDC staff beginning September 1, 2001. Users will be able to print any portions of these regulations they require. Regulation changes will be updated frequently, so the web version will be very current. Therefore, we will rely on print-on-demand by individuals from the web rather than on bulk printing and distribution.

**Performance Measures**

- ✓ Public understanding and compliance.
- ✓ Staff satisfaction with 4.115 regulations.

*Performance Report:* See the January, March, April and June 2001 issues of the *Report of the Regulations Committee* from John Smith, Chairman, to Jerry Conley, Director.

**REVIEW TEAM:** Lead: Regulations Committee, Bob White; Participants: Wayne Porath, Marlyn Miller, Lorna Domke





#### Goal 4: Public Lands and Facilities that Invite Public Use Strategic Issue #3: Land Acquisition Priorities, Office Plans, and Infrastructure and Facilities Planning

The Department prepared a comprehensive Land Acquisition Plan in 1991, which has been very useful in prioritizing Department land purchases. Several events have occurred since 1991 that now limit the plan's utility and justify its revision and update. Regional Management Guidelines (RMGs) were prepared by Department staff in 1998-1999 to identify key regional resource priorities. Land purchases identified during the RMG effort may or may not have been included in the original guide. Major floods in 1993 and 1995 stimulated a land acquisition effort along Missouri's major rivers that was not envisioned at the time of the 1991 plan. In addition, expansion plans for new conservation areas, those acquired since 1991, are not addressed in the original document. Additional justification for revision is based on the Department's present access to relatively new geographic information system (GIS) technology. This technology allows automated identification, storage and retrieval of both purchase priorities and acquisition achievements in geographically related formats. A need also exists to map out future offices and facilities on Department areas in order to efficiently plan and budget for these types of development.

##### **Desired Results**

- ❖ An updated GIS-based land acquisition plan to guide Department land purchases.
- ❖ An automatically updated, GIS based acquisition accomplishment monitoring system.
- ❖ An inventory of the infrastructure (roads, levees, parking areas) and facilities (boat ramps, fishing jetties, piers and docks, privies, pavilions etc.) on Department areas.

*Target Geography:* Statewide

##### *Progress:*

##### **ACQUISITION PLAN**

The Department of Conservation developed an updated "Land Acquisition Guide" in 1991 to direct its land purchase activities. This plan identified needed expansions of existing conservation areas and general locations for entirely new conservation areas on county highway maps. The 1991 plan has served the needs of the agency, but has become outdated as acquisition objectives have been realized and as new needs have surfaced. In addition, new technologies now enable better management of the geographically referenced data included in 1991 plan.

Recognizing the need to update the acquisition plan, MDC's Capital Improvement Coordinating Committee (CICC) initiated a plan revision in 2000. Recommendations were developed by Regional Coordination Teams (RCT) and reviewed by Unit Coordination Teams (UCT) and the CICC. Area expansion and other acquisition data were submitted in geographical information system format using ArcView software. ArcView enables assembly of plan information on a variety of mapping formats including topographical maps, county maps, aerial photos, etc. Moreover, GIS enables plan data to be easily updated/revised in the future; land purchase achievements are easily summarized and depicted and data can be readily assessed by agency staff.

Final revisions by the RCT/UCT are currently underway. The plan is anticipated to be presented to the CICC for approval in August 2001, and subsequently submitted to the Director and Commission after approval by the CICC.



## LANDS DATABASE

In 2000, the Department initiated a process for consolidating land ownership and building information in a single computerized system of records that will be accessible to most MDC employees. Currently land and building information is maintained separately by the Real Estate Unit and the Fiscal Services Section.

The Information Technology Section is developing the lands database to capture all information relative to individual real estate transactions, and historic and current information on buildings. It is anticipated that the lands data base will be completed by January 1, 2002.

## OFFICE AND FACILITIES PLAN

A formal office and facilities plan has not been completed; however, key steps to address these needs have been addressed. A review of regional operations completed by the Administrative Services Division Administrator has outlined the status of facilities at regional offices and the Conservation Research Center and makes specific recommendations. The Conservation Commission has been briefed on the status and needs of major MDC facilities in a "photo tour" of MDC facilities.

Importantly, construction/development projects for offices in Southeast Region, Southwest Region, Northeast Region and Ozark Region have been developed, funded, and, in some cases, are completed or currently underway. Acquisition efforts for other office sites have been initiated and are in varying stages of completion and achieved varying levels of success (East Central, Research, West Central). Recommendations on a permanent location for the Kansas City Regional Office have been presented, but have not been accepted by the Commission.

## Performance Measures

- ✓ An updated land acquisition plan available to staff by January 1, 2002
- ✓ Completed infrastructure and facilities inventory of Department areas with information included in Department lands database.

*Performance Report:* See Progress Report above.

**REVIEW TEAM:** Lead: CICC; Participants: Marlyn Miller, Jim H. Wilson, Keith Lesko, Don Schulteheinrich, Forestry



## Goal 5: Integration of Conservation Principles and Urban Lifestyles Strategic Issue #1: Foster Conservation Values Among Urban Citizens

Two-thirds of all Missourians live in the three metropolitan areas of St. Louis, Kansas City and Springfield. Reaching this large group of constituents is a continuous challenge. Urban media outlets are not readily accessible, except in cases of controversy or at great expense, and our traditional programs have limited relevance to urban lifestyles. It is important that we learn what urbanites expect from our agency, and deliver programs that meet their needs while fulfilling our constitutional mandate to manage the state's fish, forest and wildlife resources for all Missourians.

### **Desired Result**

- ❖ Urban constituents with enhanced conservation values and greater participation in Department programs.
- ❖ Greater exposure of urban children and adults to conservation through educational programs and activities such as outdoor skills, shooting sports, fishing, youth hunts and hunter education.
- ❖ Better understanding of urban citizen's needs, desires and expectations with respect to Department lands, facilities and services.

*Target Geography:* Statewide

*Progress:* Development of new facilities including the Parma Range and the Jim Tom Blair building provide expanded opportunities to connect positively with the urban public. Additionally, the Discovery Center, the Cape Girardeau Nature Center and Joplin nature center are in design or construction stages. Reorganization of the Outreach and Education Division with the addition of regional supervisors integrated into regional coordination efforts has provided enhanced emphasis on urban constituent services. Development and full implementation of the Dalton, Henges and Lake City ranges now provide increased opportunities for hunter education and participation in shooting sports for urban residents. Becoming An Outdoors-Woman and Wonders of the Outdoor World programs draw participants chiefly from urban areas and provide introductions to outdoor skills. See **Fisheries Division FY01 urban fishing program report for additional information.**

### **Performance Measures**

- ✓ Awareness and support of Department activities by urban constituents.
- ✓ Number of urban constituents at special events, nature programs, outdoor skills and hunter education.
- ✓ Number of constituents using Department shooting ranges.
- ✓ Percent of urban adults who identify themselves as conservationists.
- ✓ Percent of urban adults who cite the condition of forest, fish and wildlife as important components of the quality of life in Missouri.
- ✓ Percent of urban teenagers who cite fishing, hunting, hiking or camping as important personal activities.

*Performance Report:* Awareness and support of Department activities by urban constituents: The Conservation Monitor 2000 indicates that when self-identified urban residents were asked for an indication of the Department's performance in providing services to them and their families, 18% reported the Department was doing an excellent job; 20% reported a good job, for a total of 38%. In the most recent previous survey, 12% reported an excellent job and 11% reported a good job.

Number of urban constituents at special events, nature programs, outdoor skills and hunter education. In FY 2000, visitation at urban based interpretive areas included 873,728 individuals at eight sites.

Special events including Friday Night Live and Earth Day events, urban and therapeutic fishing clinics, Family Fishing Fairs, National Hunting and Fishing Days and similar events reached an additional 31,698 individuals, most of them from urban and suburban areas. Eagle Day events hosted an additional 15,000+ participants.

**REVIEW TEAM:** Lead: Jim H. Wilson/Bob Staton; Participants: Mike Schroer, Marlyn Miller, Justine Gartner





## Goal 5: Integration of Conservation Principles and Urban Lifestyles

### Strategic Issue #2: Urban Sprawl and Natural Resources

In its 66-year history, the Missouri Department of Conservation has squared off against many threats to healthy habitats: forest fires, deforestation, abusive farming practices, wetland drainage, stream channelization and many others. None has been so damaging, and yet so complex and controversial, as urban sprawl. Consider, for example, that St. Louis suburbs have more than doubled in land area during the past 20 years. That land will never again provide food, water and cover for wildlife. And, as the amount of impermeable surfaces (paved parking lots, roads, etc.) grow, run-off increases, leading to erosion and streams fouled by pollutants. Both Kansas City and St. Louis have been identified as two of the worst examples of sprawl in the nation, yet the problem afflicts small communities, too.

The Conservation Department is often asked to buy land to save it from development, or to keep development from encroaching on MDC areas. Clearly, buying all the land threatened by development is not a practical solution. Easements and land trusts offer promising alternatives, but cannot stem the problem of declining habitat due to urban sprawl.

Tax dollars pay for paved roads to undeveloped areas. Once homes are built, tax dollars buy sewers and utilities, build schools, and pave more roads. Meanwhile, existing infrastructure is allowed to deteriorate, affecting property values and making undeveloped land even more desirable.

Some states have addressed urban sprawl by not subsidizing roads, sewers, utilities and buildings in areas that have not been designated for growth. These so-called "smart growth" strategies are controversial but have resulted in preservation of forest and agricultural lands, improved quality of life, shorter commute times, less dependence on fossil fuels, fewer impermeable surfaces, walkable and bikeable communities, and fewer detrimental impacts to surrounding land and water. Tax dollars are saved by upgrading existing infrastructure instead of duplicating it elsewhere.

#### **Desired Results**

- ❖ Reduced impacts of urban development on natural resources.
- ❖ Increased citizen recognition of the link between resource conservation and quality of life.
- ❖ Increased citizen involvement in community planning decisions.
- ❖ Environmentally sound, planned urban growth.
- ❖ Public land ownership in urban areas.
- ❖ Increase in forest canopy cover of Missouri communities.
- ❖ Healthy urban ecosystems where trees are managed as part of a community's infrastructure.
- ❖ Developers who follow Best Management Practices.
- ❖ Decrease in amount of impermeable surfaces (paving), which leads to increased run\_off, pollution and erosion.

#### *Target Geography: Statewide*

*Progress:* Several efforts under way in the Conservation Department address urban sprawl. More are needed. Examples are:

- Watershed conservationists from Private Lands Services division help guide communities' planning and zoning boards, showing them the importance of maintaining healthy watersheds and effects of uncontrolled development.

- Common Ground Forums in St. Louis bring together stakeholders interested in growth issues to discuss building and development techniques, "smart growth" strategies and urban wildlife issues.
- The Kansas City Wildlands Initiative invites volunteers to work on behalf of existing public lands to enhance their biodiversity and educate others on the importance of maintaining habitat.
- The Conservation Department is represented on the Governor's Smart Growth Task Force, which addresses state agency roles in development issues.
- Urban fisheries and wildlife biologists, and urban foresters work on a variety of fronts; they monitor stormwater run-off that damages streams, provide advice to landowners about maintaining habitat, and consult with local governments on environmental impacts of development decisions.

#### **Performance Measures**

- ✓ Number of communities adopting "smart growth" or similar initiatives.
- ✓ Number of planning and zoning boards contacted with information about watersheds.
- ✓ Number of developers contacted about using Best Management Practices for construction.
- ✓ Number of Common Ground Forums held.
- ✓ Number of participants in Kansas City Wildlands Initiative.
- ✓ Number of community governments contacted about growth strategies.
- ✓ Number and type of activities initiated by the Governor's Smart Growth Task Force.
- ✓ Number and type of information efforts to raise awareness of habitat loss and smart growth efforts.

#### *Performance Report:*

- MDC held two Common Ground Forums in the past year to address watershed health and urban wildlife concerns.
- The Governor's Task Force on Smart Growth has drafted an Executive Order encouraging redevelopment of downtown business districts.
- MDC helped fund a study through the Community Policy Analysis Center on the cost to communities to subsidize development.
- The *Missouri Conservationist* magazine printed an article by an urban forester and urban wildlife biologist about urban sprawl.

**REVIEW TEAM:** Lead: Kathy Love; Participants: Chris Cole, Marlyn Miller, Justin Gartner





## Goal 5: Integration of Conservation Principles and Urban Lifestyles

### Strategic Issue #3: Lack of Fishing Opportunities in Urban Areas

As urban areas continue to expand and the urban population increases, lack of close-to-home ponds and lakes for fishing becomes more apparent. For example, about 2 million people live in the St. Louis Region (49% or about 900,000 fish), and they have only about 1,200 acres of flat-water (750 anglers/acre of water) to use within St. Louis, Jefferson, and St. Charles counties. The Missouri and Mississippi rivers are also under-utilized resources due to a lack of direct access to the rivers.

#### **Desired Results**

- ❖ Increased number of public fishing lakes in the St. Louis and Kansas City metropolitan areas.
- ❖ Increased number of big river and stream accesses in the St. Louis and Kansas City regions.

*Target Geography:* Kansas City and St. Louis

#### *Progress:*

- Information for the two metropolitan areas can be extracted from Fisheries Division's portion of the FY01 Department annual report.

#### **Performance Measures**

- ✓ Number of public fishing lakes constructed in the St. Louis and Kansas City metropolitan areas.
- ✓ Number of big river and stream accesses constructed in the St. Louis and Kansas City metropolitan areas.

#### *Performance Report:*

- Information for the two metropolitan areas can be extracted from Fisheries Division's portion of the FY01 Department annual report.

**REVIEW TEAM:** Lead: Marlyn Miller; Participants: Mike Schroer, Bob White







## Goal 6: Effective Conservation Partnerships

### Strategic Issue #1: Leveraging Department Funds

Funding is a continuous issue as the Department struggles to provide programs and services to meet fish, forest, and wildlife needs and public demand. Many people stand ready to donate to the conservation cause and many public and private organizations will provide funds for a wide variety of projects that can benefit fish, forests, and wildlife. The Department has a good track record in acquiring outside funds from the "usual sources." However, learning how to tap other, less traditional sources like other agencies, private benefactors, major foundations and corporate sponsors could greatly enhance our ability to stretch the taxpayers' dollar. The Missouri Conservation Heritage Foundation has created new options, funds and opportunities for help. However, substantially increased impact on our overall financial position seems within reach with proactive leadership at all levels, development of staff skills to pursue outside dollars, and better reporting of status and progress.

#### Desired results

- ❖ Outside, nontraditional dollars fund Department projects that might otherwise be unaffordable.
- ❖ Partnerships with organizations, agencies and local communities enhance MDC programs at reduced cost.

*Target Geography:* Statewide

*Progress:* MDC has a strong tradition of leveraging funds through grants and partnerships. We've made progress in the diversity of sources: historic use of Sport Fish & Wildlife Restoration and NAWCA funds are increasingly supplemented by other sources. The Missouri Conservation Heritage Foundation (MCHF) has added new flexibility and funding. RCTs and UCTs are getting better at finding and pursuing uncustomary grant opportunities and partnerships.

Miscellaneous Income totals for operational grants and donations have significantly contributed in recent years. Revenue projection data provided June 1 shows the following amounts. What it does not reveal is that some grants (including those from MCHF) have paid directly for MDC programs (e.g. outdoor classrooms, Discovery Center artwork, etc.) and are not reflected in internal accounting reports.

	FY97	FY98	FY99	FY00	FY01 (est)
PR, DJ, NAWCA				\$1,500,000	\$990,000
Donations	\$193,426	\$433,867	\$796,511	\$70,815	\$50,000
Other					\$358,000

Source: Roger Luebbert, Detail Revenue Trends, June 1, 2001

#### Performance measures

- ✓ Number of dollars and value of in-kind support received by the Department and through the Foundation annually (Source: MCHF, Fiscal Services).
- ✓ Annual report entry listing value and identifying projects or programs funded with outside dollars (Source: Fiscal & Outreach Services produce, budget units report).
- ✓ Grant and contribution income distinguishing traditional (PR, DJ, NAWCA) from non-traditional (TEA-21, CARA, MCHF, etc.) (Source: Fiscal Services).

**REVIEW TEAM:** Lead: Roger Luebbert; Participants: Diana Hallett, Shannon Cave, Forestry







## Goal 6: Effective Conservation Partnerships

### Strategic Issue #2: Passage of the Conservation and Reinvestment Act

With over 800 species currently on the Missouri Species of Conservation Concern Checklist, additional funds are needed for management, restoration and land acquisition to benefit natural communities and declining species. Less than 1% of Missouri pre-settlement prairie remains and only 5% of historic wetlands exist. Grassland birds in Missouri comprise a large group of declining wildlife species. Additional funding is needed to help reverse the 30-year downward trend for many other bird species monitored through the annual Breeding Bird Survey. Additions to the Federal list of endangered and threatened species will continue to grow and the five federal candidate species will continue to decrease in number without additional funding. Additional funding is needed to develop fish and wildlife access viewing facilities on Department lands to make these areas available for the nearly 80% of the population that enjoys watching wildlife. Expanded funding is needed for forming productive partnerships with other agencies, organizations and communities to further conservation and wildlife-related outdoor recreation and education.

#### **Desired Result**

- ❖ Legislative approval of funding, such as CARA or other similar measures, dedicated to expanded wildlife conservation to address the full range of wildlife and their associated habitats, as well as wildlife associated education and recreation, and provide for funding of partnerships and cooperative projects.

*Target Geography:* Statewide

*Progress:* Although CARA failed to pass in the 106<sup>th</sup> Congress, CARA support resulted in the establishment of the Wildlife Conservation and Restoration Program (WCRP) within the Pittman-Robertson program, with wording essentially the same as that of the wildlife title of CARA. Congress appropriated \$50,000,000 into WCRP, of which about \$968,000 will come to Missouri. MDC is currently preparing to disperse the new funds through partnership grants, cooperative projects, implementation of qualifying regional priorities, and other suitable projects and activities. An internal CARA Implementation Committee guides this process. The 2002 federal budget will likely double the WCRP funding to \$100,000,000, and CARA itself has a good chance of passing in the 107<sup>th</sup> Congress either this year or next. The bill now has 223 cosponsors in the House of Representatives. MDC will continue to give CARA its highest priority.

#### **Performance Measures**

- ✓ Passage of funding measures.
- ✓ Number of partnership funding agreements and cooperative projects in effect.
- ✓ Number of internal projects and enhancements accomplished because of CARA funding.

**REVIEW TEAM:** Lead: Rick Thom; Participants: Ollie Torgerson, Jim H. Wilson, Dave Erickson





Goal 6: Effective Conservation Partnerships  
Strategic Issue #3: Information Sharing Among Conservation Interest Groups and Stakeholders

The number of interest groups and non-governmental organizations that participate directly or indirectly in fish, forest, and wildlife conservation has grown significantly over the past 15 years. While some groups regularly interact and partner with the Department, many do not. In addition many, if not most, are unaware of their own similarities and opportunities for partnerships among groups.

Many conservation issues are too big for one agency or group to handle independently. Moreover, the future health of the conservation movement in Missouri is dependent upon unity and communication among all groups and organizations.

**Desired results**

- ❖ Greater awareness among the various conservation interests of opportunities to work together and share resources.

*Target Geography:* Statewide

*Progress:*

- Proceedings of the 2001 Conservation Focus (available from Policy Coordination Section).
- Report of the Northwest Regional Coordination Team's 2001 Conservation Forum (available from Department's St. Joseph Regional Office).
- List of Missouri Conservation Federation resolutions (available from Jefferson City office of Conservation Federation), and Department response to these resolutions.

**Performance measures**

- ✓ Number of groups/individuals represented at the annual Conservation Focus meeting.

*Performance Report:*

- Year 2001 Conservation Focus sponsored by the Department, an event to facilitate interaction among conservation groups, was attended by 52 representatives of 37 conservation organizations.
- Northwest Regional Coordination Team's 2001 "Conservation Forum" was attended by 24 representatives of 14 conservation organizations.
- The Department continues active committee and program involvement at the annual meeting of the Conservation Federation of Missouri.

*Recommendations:* Encourage each Department Regional Coordination Team to conduct Conservation Focus every 12-18 months.

**REVIEW TEAM:** Lead: Dan Witter; Participants: Ollie Torgerson, Marlyn Miller, Ginny Wallace







## Goal 7: Retain Public Support and Recruit New Participants

### Strategic Issue #1: Declining Participation in Small Game Hunting

Participation in small game hunting has declined precipitously during the past three decades (e.g., from greater than 160,000 quail hunters annually in the 1960s and 1970s to greater than 100,000 in the late 1980s to about 60,000 current hunters). This downward trend has important negative implications for rural culture and economics, and for Department revenue. For those close to rural life styles, the issues seem to focus on wildlife abundance and access to private lands. For those people living a more urban life style, the relevance of small game hunting is the issue. Access to land, competing interest and lack of time, lack of knowledge, and negative feelings about guns and hunting jeopardizes the future participation by urban dwellers, thereby threatening a time honored tradition.

#### **Desired Results**

- ❖ Increase in small game hunting participation to 1987 levels.

*Target Geography:* Statewide

*Progress:* Ideas that have been implemented thus far that should slow the decline or possibly increase small game hunter numbers have focused on youth. Youth waterfowl hunts have been established that might encourage more youth to hunt small game. The Youth Deer and Turkey Hunting Permit was created in 1999 to encourage youngsters to hunt larger game animals. In 2001, the first youth turkey season was also implemented that may increase the number of hunters further. In 2001, we will have the first youth deer hunt. These types of activities combined with conservation area specific opportunities for youth and novice hunters should be encouraged.

#### **Performance Measures**

- ✓ Hunting participation rates for Missourians.
- ✓ Number of annual resident and non resident permits sold.
- ✓ Number of days afield by small game hunters.
- ✓ Small game hunter satisfaction.

*Performance Report:* Information used to monitor performance measures for this issue comes from several sources. Since 1967, the small game harvest survey has been conducted using the same basic format and hunter permits as the sampling frame. Focusing on the 3 most popular small game species this information shows a peak of active small game hunter numbers in the early 1970s with a continual decline until present. The figure to the right shows the number of active rabbit, squirrel, and quail hunters as estimated from the small game harvest survey. Many of the major steps in this decline are due to changes in permit regulations (e.g., exemption of seniors after the 1/8% sales tax passes) and permit fee increases.

Permit sales can also be monitored for trends in hunter numbers. If one gauges the number of hunters by permit type, a mixed message can be shown as with the sales of all small game hunter permit sales versus only resident firearms deer permits. From this information, it appears that resident deer hunters have been increasing faster than the number of small game hunters has been decreasing.

Using information from the 1980-1996 National Survey of Fishing, Hunting, and Wildlife Associated Recreation, the estimated number of individuals 16 years old and older hunted in Missouri (with

number of resident hunters in parentheses) shows a decline from a high in the mid-1980s but numbers have stabilized in the 1990s. It will be interesting to see what the 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation will show for Missouri.

One of the other performance measures for this strategic issue focuses on the number of days afield that small game hunters participate. Again, using information from the annual small game harvest survey for rabbits, squirrels, and quail, the number of days afield for each of these species has shown a near linear decline since the early 1970s. This is not surprising given that days afield and hunter numbers are often tied together. They are connected by the fact that to have days afield you need to have hunters in the field actively hunting.

*Recommendations:* The 4 performance measures are appropriate in monitoring the number of small game hunters. We should use the annual small game harvest results to monitor the “hunting participation rates for Missourians” and the “number of days afield by small game hunters” as reported above. Results from this annual survey have not shown an estimate for total number of small game hunters in Missouri. These estimates would be easy to calculate. Therefore, we would request that the principle investigator for this survey consider including an overall estimate of small game hunters as a part of the report. If possible, overall estimates of hunter numbers from at least 1987 to present should be considered so that the trends in these data can be examined.

Other information for the performance measures can come from a variety of sources. The annual report from Fiscal Services on permit sales is an excellent source for monitoring the “number of annual resident and non resident permits sold.” By June 30, 2002, results from the 2000 small game hunter information survey should be in final form and would be the baseline information for monitoring “small game hunter satisfaction.” By early 2003, results from the 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation should be available.

**REVIEW TEAM:** Lead: Steve Sheriff; Participants: Jim H. Wilson, Protection, Greg Jones





## Goal 7: Retain Public Support and Recruit New Participants

### Strategic Issue #2: Angler Participation Rates

Nationally, license sales for freshwater fishing are declining. In some states, declines of up to 19% have been reported compared to years of peak license sales. While license sales in Missouri have not significantly declined, we have had a "no growth" period over the last eight years. Missouri's population is becoming increasingly urbanized. While teens and young adults continue to have positive attitudes and an awareness of fishing as a valued and enjoyable recreational pursuit, there is increased competition for their free time. Also, Missouri's population is aging and the proportion of potential new angler recruits who might be introduced to the enjoyment and benefits of recreational angling is declining. Surveys indicate that people become anglers at a relatively early age or not at all. Our challenge is to develop and implement measures which will increase the number of anglers in Missouri. Increased participation would have a direct positive effect on Department income, build a stronger clientele and support base for the Department and its programs and lead to strong public support for fisheries resource protection and management.

#### **Desired Results**

- ❖ Increase angling participation in Missouri.

*Target Geography:* Statewide

#### *Progress:*

- See the Fisheries, Outreach & Education and Protection divisions' portions of the FY01 Department annual report for activities related to fishing instruction, fishing clinics, special fishing events, angler recognition programs, and informational and promotional materials about fishing in Missouri.
- Angler recruitment task force created in 2001.

#### **Performance Measures**

- ✓ Fishing permit sales.
- ✓ Angler participation rates in Missouri and by Missourians.

#### *Performance Report:*

- Fishing permit sales information is provided annually by the Fiscal Services Section.
- Angler participation rates information is available periodically (~every five years) from the National Hunting & Fishing Survey conducted or funded by the U.S. Fish & Wildlife Service.

**REVIEW TEAM:** Lead: Marlyn Miller; Participants: Jean Mayer, Bob White, Greg Jones





## Goal 7: Retain Public Support and Recruit New Participants

### Strategic Issue #3: Recreational Opportunities on Conservation Areas

The 1996 *National Survey of Fishing, Hunting and Wildlife-Associated Recreation* documented high interest and demand for nature-related outdoor recreation. In addition, public use surveys on selected Department areas revealed large numbers of visitors interested in hiking, nature viewing and other activities beyond traditional hunting and fishing. Though it varies regionally, the Department provides for relatively limited non-traditional recreation uses. Part of the reason for this is the staff time and resources needed to maintain public use facilities to a standard that makes them attractive to use. Also, when financial and staff resources are limited, resource management has appropriately come first. As demand for non-traditional recreational use of Department areas increases, compatibility issues (e.g., hunting vs. hiking/biking vs. resource protection) must be addressed in a balanced way. Providing adequate and diverse resource oriented recreational experiences in each region will help meet demand and nurture future support for conservation. Department areas should be user friendly, well maintained, and where practical, facilities should reflect a commitment to family-oriented recreation.

#### **Desired Results**

- ❖ Diverse recreational opportunities in each region consistent with fish, forest, and wildlife management needs, and public demand.
- ❖ All areas meeting Department public use maintenance standards.

#### *Target Geography: Statewide*

*Progress:* An MDC Public Use Committee was established and charged with increasing the clarity regarding the type and extent of public uses and supporting facilities that should be provided on conservation areas. The Public Use Committee is composed of representatives of the ten regions (chosen by their RCTs), representatives of the three management units, policy coordination, and legal counsel. The Committee's work represents the first comprehensive statewide level effort to: 1) become aware of the range and complexity of public use issues and conflicts, 2) develop a single, cohesive policy to address public use of conservation areas, 3) develop activity-specific guidance for area managers that will increase consistency while maintaining flexibility, and 4) get department-wide input on the role and level of public use that should be provided on conservation areas. The Committee's draft Report of Findings underwent department wide review and is currently being finalized for submittal to the Director and Deputy Director in September, 2001. The final report will identify numerous specific recommendations and action items that will address both of the desired results identified in this strategic issue.

In addition and concurrent to the Public Use Committee's work, the Natural History Division initiated and completed the MDC Statewide Trail Inventory (summary of results included). A camping inventory will be completed by September 2001 and a statewide review of MDC disabled-accessible trails will be completed by December 2001. The information from these inventories is a critical first step toward assessing current recreational opportunities and maintenance conditions, and will help determine future needs and actions.



**DISABLED-ACCESSIBLE TRAIL OPPORTUNITIES  
by REGION**

REGION	number of disabled-accessible trails	number of areas with disabled-accessible trails	counties with disabled-accessible trails	total disabled-accessible trail mileage in region	% of total state disabled-accessible trail mileage
Northwest	6	4	4	2.6	23.6%
Kansas City	4	3	3	2.1	19.1%
Central	2	2	2	0.7	6.4%
Northeast	0	0	0	0	0
St. Louis	4	4	1	1.7	15.5%
Southeast	3	3	3	1.4	12.7%
West Central	0	0	0	0	0
East Central	1	1	1	1.4	12.7%
Southwest	2	2	1	1.1	10.0%
Ozark	0	0	0	0	0
<b>TOTALS</b>	<b>22</b>	<b>19</b>	<b>15</b>	<b>11.0</b>	<b>100%</b>

## HIKING OPPORTUNITIES by REGION

\*Includes Disabled-Accessible trails, Hiking-Interpretive trails,  
and Hiking - Non-Interpretive trails

REGION	number of designated hiking trails	number of areas with designated hiking trails	counties with designated hiking trails	total hiking trail mileage in region	% of total state hiking trail mileage
Northwest	21	10	8	28.2	11.4%
Kansas City	20	9	3	19.4	7.8%
Central	12	7	8	30.3	12.2%
Northeast	2	2	2	2.8	1.1%
St. Louis	27	11	3	47.1	19.0%
Southeast	23	16	10	26.6	10.7%
West Central	10	7	6	12.2	4.9%
East Central	10	9	6	20.0	8.1%
Southwest	27	15	6	30.5	12.3%
Ozark	17	13	6	31.0	12.5%
<b>TOTALS</b>	<b>169</b>	<b>99</b>	<b>58</b>	<b>248.1</b>	<b>100%</b>

\*Does not include designated bicycle or horse trails, although they are also open to hiking.



## BICYCLING OPPORTUNITIES by REGION

\*Includes Hike/Bike trails and Hike/Bike/Horse trails

REGION	number of designated bicycle trails	number of areas with designated bicycle trails	counties with designated bicycle trails	total bicycle trail mileage in region	% of total state bicycle trail mileage
Northwest	8	6	6	48.0	12.9%
Kansas City	1	1	1	15.0	4.0%
Central	9	9	8	66.6	17.8%
Northeast	4	4	3	34.8	9.3%
St. Louis	7	5	2	25.0	6.7%
Southeast	5	5	5	50.2	13.4%
West Central	5	1	1	22.2	6.0%
East Central	2	2	1	20.5	5.5%
Southwest	12	9	8	91.0	24.4%
Ozark	There are no designated bicycle trails in the Ozark Region				
TOTALS	53	42	35	373.3	100%



## HORSEBACK RIDING OPPORTUNITIES by REGION

\*Includes Hike/Horse trails and Hike/Bike/Horse trails

REGION	number of designated horse trails	number of areas with designated horse trails	counties with designated horse trails	total horse trail mileage in region	% of total state horse trail mileage
Northwest	7	5	5	47.3	13.5%
Kansas City	1	1	1	15.0	4.3%
Central	6	6	7	47.6	13.6%
Northeast	4	4	4	42.0	12.0%
St. Louis	4	2	1	17.6	5.0%
Southeast	5	5	5	50.2	14.3%
West Central	5	1	1	22.2	6.3%
East Central	2	2	1	20.5	5.9%
Southwest	11	8	7	88.0	25.1%
Ozark	There are no designated horse trails in the Ozark Region				
<b>TOTALS</b>	<b>45</b>	<b>34</b>	<b>32</b>	<b>350.4</b>	<b>100 %</b>

### Performance Measures

- ✓ Number of designated trails and total trail miles, by region.
- ✓ Number of disabled-accessible trails and total trail miles, by region.
- ✓ Number of designated bicycle trails and total trail miles, by region.
- ✓ Number of designated horse trails and total trail miles, by region.
- ✓ Number of designated camping areas, by region.

*Performance Report:* New measures added, old measures deleted. Need to develop statewide public use maintenance standards and time reporting process.

**REVIEW TEAM:** Lead: Don Kurz/Teresa Kight; Participants: Russ Titus, Marlyn Miller, Jim H. Wilson, Protection, Jane Epperson, Forestry







## Goal 8: Improve Business Management Systems

### Strategic Issue #1: Workforce Diversity

The Department serves a diverse public, all of whom pay the Conservation Sales Tax that provides most Department funding. It is important these citizens, regardless of race, gender or ability, be given the opportunity to learn about resource management and experience conservation recreation. Their desires and expectations can be better understood when they are represented in our workforce, so to the degree qualified candidates can be recruited, a diverse workforce is desirable.

The Department gains in credibility when its employees are not only highly qualified but also representative of the population. While the Department has served these groups well in the past, recognizing changing workforce trends and having more employees with diverse backgrounds and viewpoints will ensure our effectiveness in the future.

#### **Desired Results**

- ❖ Positive trend in the employment and retention of women, minorities and the disabled in Department positions.

*Target Geography:* Statewide

*Progress:* The Department's FY2001 Affirmative Action Plan (AAP) received a successful evaluation by the Missouri Office of Equal Opportunity with comments that the narrative may serve as an example for other state agencies. In the Plan, it is stated that the utilization of women and all minorities by the Department is not a "problem area." Minorities are represented in 7 of the 10 Divisions and females (not including those in secretarial support positions) are represented in 100% of all Divisions. To enhance the value of AAP information, future plans will "close out" with fiscal year-end information, then quarterly reports will be generated to show current status of employment and retention efforts.

The Department also sponsors an external Disabled Accessibility Advisory Council which is comprised of eight volunteers who advise on accessibility, usability, suitability and reasonable accommodations for persons with disabilities. In addition to this Council, an internal Advisory Council will be initiated in FY2002. This Council's mission will be to coordinate accessibility matters within and among Divisions and incorporate employment issues and recommendations.

Other associations continue to be used to enhance Department visibility and conservation as a career choice. One is a Natural Resources Career Camp (NRCC) which the Department cosponsors with 10 Federal and State agency partners. The focus of NRCC is to expose high school minority students to non-traditional career paths in natural resources management and conservation. Over 150 students have completed all or part of the 3\_year camp since 1993. Revisions are slated for NRCC to monitor cost, reduce camp length and offer mentorship and resource management job shadowing opportunities. Another association is with MINRC (Minorities in Natural Resources Committee, Southeastern Association of Fish & Wildlife Agencies [SEAFWA]). As a participating member, the Department assists with activities that stimulate awareness among people of color about the field of conservation. An example of these activities is the organizing of minority students to attend a SEAFWA Conference. The Department also forges relationships with not-for-profit organizations such as Advent, who works with employers to provide Advent clients (referred to Advent by vocational rehabilitation offices) with job career training. Additionally, some Divisions routinely



work with groups such as ACT (Alternative Community Training) or Sheltered Workshops; for example, Wildlife Research has employed staff from ACT for 11 years and awarded bids to Sheltered Workshop for various projects.

#### **Performance Measures**

- ✓ Number of targeted events intended to encourage women, minority or people with disabilities interest in conservation careers.
- ✓ Average tenure of women and minorities in Department.
- ✓ Percentage of salaried workforce in select categories.
- ✓ Percentage of promotions received by salaried workforce in select categories.

#### *Performance Report:*

- 6 career fairs/expos were participated in to encourage interest in conservation careers:
  - Central MO State Career Fair (Warrensburg) – 947 students attended
  - Governor's Career Fair (Kansas City) – 350 people attended
  - MO Black Expo (St. Louis) – 70,000 people attended
  - La Lista Latina (Kansas City) – 20,000 people expected
  - Multi-Cultural Festival (Springfield) – 3,000 people attended
  - MU School of Natural Resources Career Fair – 429 students attended
- 94% of 129 positions were advertised to vocational rehabilitation offices via Job Opportunities Announcements.
- 90% of 129 positions were advertised to the Affirmative Action Council via Job Opportunities Announcements.
- 10 students will graduate from NRCC (Natural Resources Career Camp) in FY01 with 11 remaining in the program.
- 88 students attended the SEAFWA (Southeastern Association of Fish & Wildlife Agencies) Conference in FY01.
- 3 individuals from ACT (Alternative Community Training) were employed during FY01 to assist with projects.
- The average tenure of all Department salaried employees is over 11 years. The average tenure of Department female employees (excluding those in secretarial support positions) is approximately 9 years. The average tenure of Department minority employees is approximately 11 years.
- Percentage of salaried workforce in the following categories:
  - Age 40 and older–58%
  - Female–23%
  - Non-Caucasian–4%
  - Percentages as of June 1, 2001
- Percentage of promotions received by salaried workforce in the following categories:
  - Age 40 and older–43%
  - Female–23%
  - Non-Caucasian–0%
  - Percentages for period June 2000 - May2001

Source of information: Human Resources recruitment staff. Number of attendees verified by individual sponsoring groups. Recruitment plans prepared by Human Resources recruitment staff from July through May 2001; Human Resources staff assigned to identified programs; one ad hoc report based on Department year of entrance for salaried minority employees as of May 31, 2001 and one ad hoc report based on Department year of entrance for salaried female employees as of May 31, 2001. Both reports used employee history files in Department Human Resources Information System.

Source of information: One ad hoc report identifying employees by gender, age (40 and over), and origin as of June 1. One ad hoc report identifying promotions occurring June through May 2001 for employees by gender, age (40 and over), and origin. Both reports used employee history files in Department Human Resources Information System.

**REVIEW TEAM:** Lead: Human Resources (Bev Riley); Participants: Marlyn Miller







## Goal 8: Improve Business Management Systems

### Strategic Issue #2: Leadership Training

All employees deserve a safe, high quality work environment which promotes opportunities for professional and personal growth, teamwork and individual respect. To meet this challenge, Department leaders must possess professional, technical and administrative skills which support creativity, open communication, and ability to adapt to change.

Additionally, all employees must be held to competency standards considered important to individual and Department success. Development and enhancement of the skills necessary to serve the resources and the public in a quality manner will ensure continued success of Department goals, and provide a pool of talent from which to draw future leaders of the organization. A structured and comprehensive leadership training and evaluation approach will guide the Department toward meeting these leadership and service imperatives.

#### **Desired Results**

- ❖ Employees who possess and exercise leadership qualities.
- ❖ A leadership training program for all employees.

*Target Geography:* Statewide

*Progress:* In October, the Department launched an *Academy for Leadership Excellence* as a means to enhance leadership qualities in all employees. The *Academy* is based on employee-identified competencies covering 5 groupings of employees. These groupings incorporate all job classifications and may contain different competencies and training components based on targeted needs. The mission of the *Academy* is "Leading, Teaching, Learning – Together" which reflects the intent that various levels of the organization will be actively involved in the training processes for others. Since the inception of the *Academy*, a number of existing programs meeting competency needs have been offered and a number of new training initiatives have been developed. Of particular significance is that the Department has become a licensed client of Franklin Covey Company and will be empowered to teach its employees effective living and leadership concepts based on Stephen Covey philosophies.

In addition, the Department implemented a new performance management and performance pay concept for top management. This concept couples goal setting, performance factors and competency levels with performance pay. A closer working relationship between employee and manager is achieved via continuous communication about performance progress, analysis of goal attainment and establishment/review of performance standards. At the conclusion of a performance evaluation period, employees are formally assessed and recommendations for pay increases based on performance levels are made, providing funding availability. Adequate funding is essential to the success of a performance pay system and careful consideration will be given to providing appropriate funding in light of constraints imposed by the economy and/or other essential programs. The Department will expand the performance management concept to additional job classification levels within the organization so that other employees are evaluated according to identified competencies and performance factors.

The integration of competency-based performance and leadership training will further the Department's efforts to enhance leadership qualities of employees and address the leadership "imperative" by cultivating future leaders within its own ranks.

### **Performance Measures**

- ✓ Number of employees achieving leadership competencies.
- ✓ Number of employees who successfully complete leadership training.

#### *Performance Report:*

- 15% of 130 top managers received an "exceed" overall sectional performance rating.
- 85% of 130 top managers received a "meet" overall sectional performance rating.
- 95% of 130 top managers received a "meet" or "exceed" rating in all factors comprising overall sectional rating.
- 67 leadership competency courses were held with 1790 in attendance.

Source of information: Ad hoc report from Human Resources to Director's Office based on individual draft performance appraisals of top managers (Division Administrators/Director's Office not available); Ad hoc report generated from *Academy* workshop database

**REVIEW TEAM:** Lead: Human Resources (Bev Riley); Participants: Don Martin, Marlyn Miller